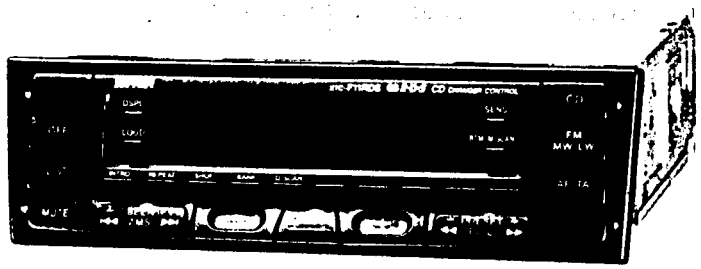
XTC-F11RDS

SERVICE MANUAL

AEP Model



- This set is almost the same as model XTC-U201RDS (AEP) previously produced.
  Therefore, see the service manual of XTC-U200/U200RDS/U201RDS for the information which is not contained in this service manual

Major Different Points

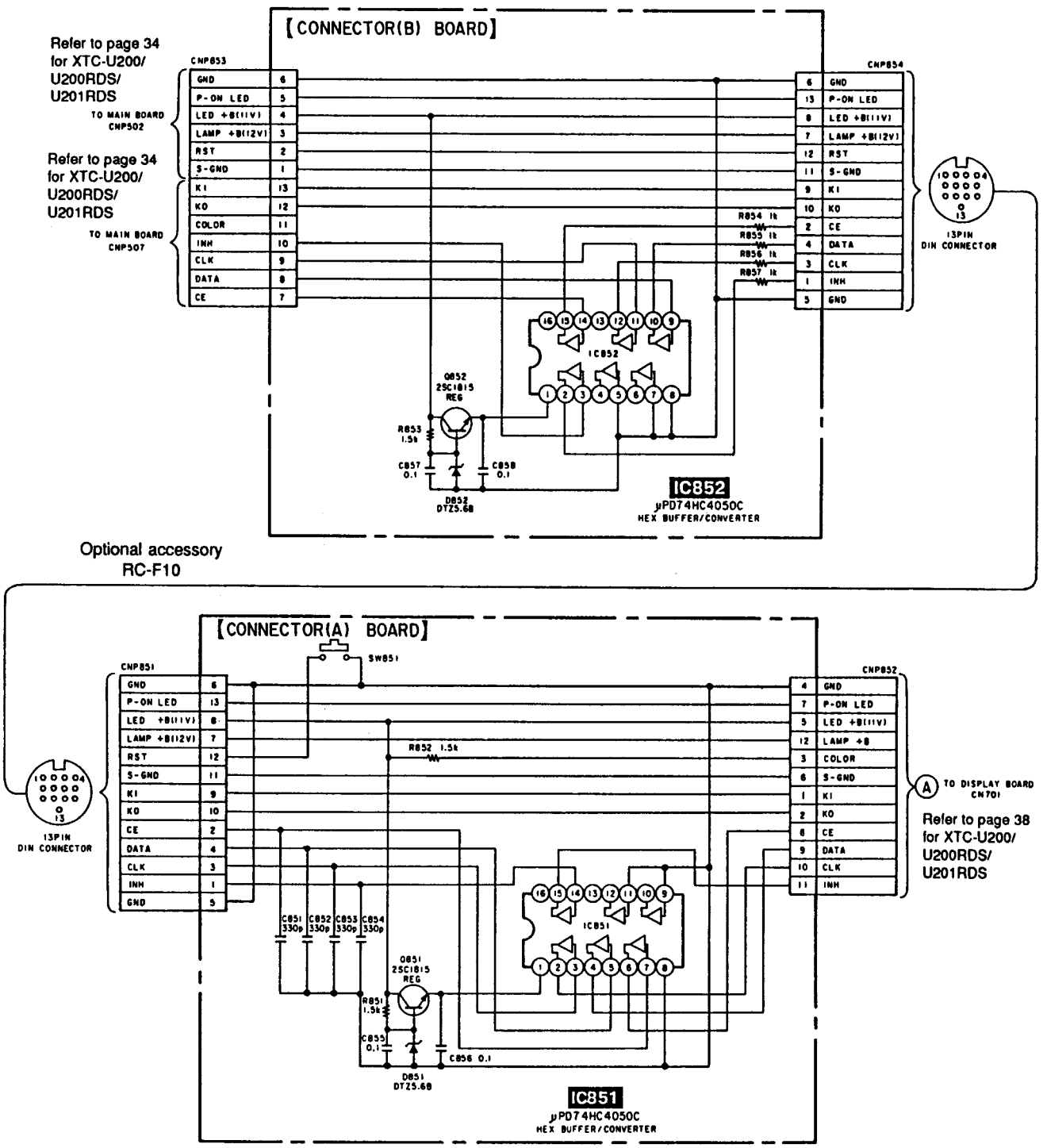
- Unlike XTC-U201RDS, This model is separated into two main sections (control unit and main body). So, the conventional connector board is removed, and the connector board (A) and connector board (B) are mounted on the control unit and main body respectively.
- The exploded view included changed and additional portions.
- The WALKMAN input is removed.

CD CHANGER CONTROL RECEIVER

SONY®

SECTION 1
DIAGRAMS

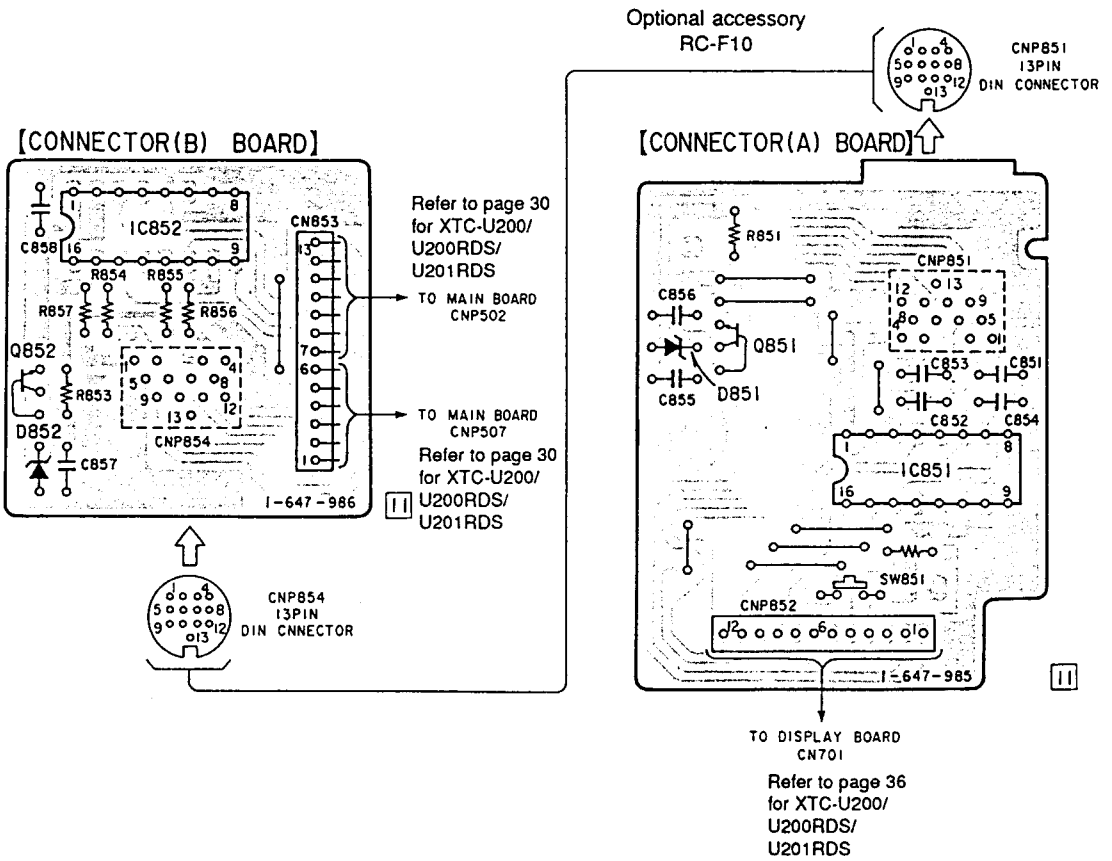
1-1. SCHEMATIC DIAGRAMS



Note:

- All capacitors are in μF unless otherwise noted. pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

1-2. PRINTED WIRING BOARDS



Note:

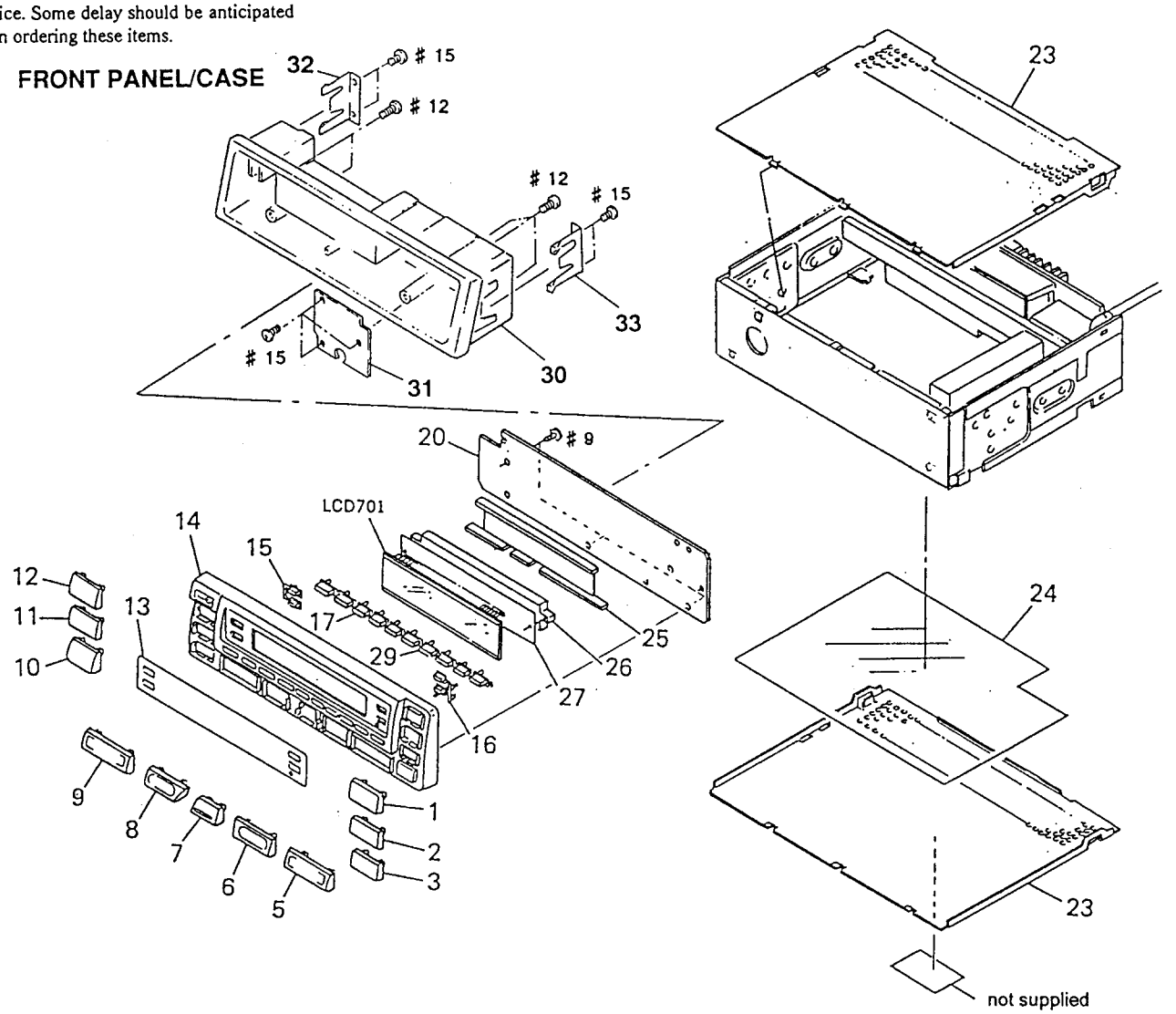
- ⟜ : parts extracted from the component side.
- ⁘ : Pattern from the side which enable seeing.

SECTION 2
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

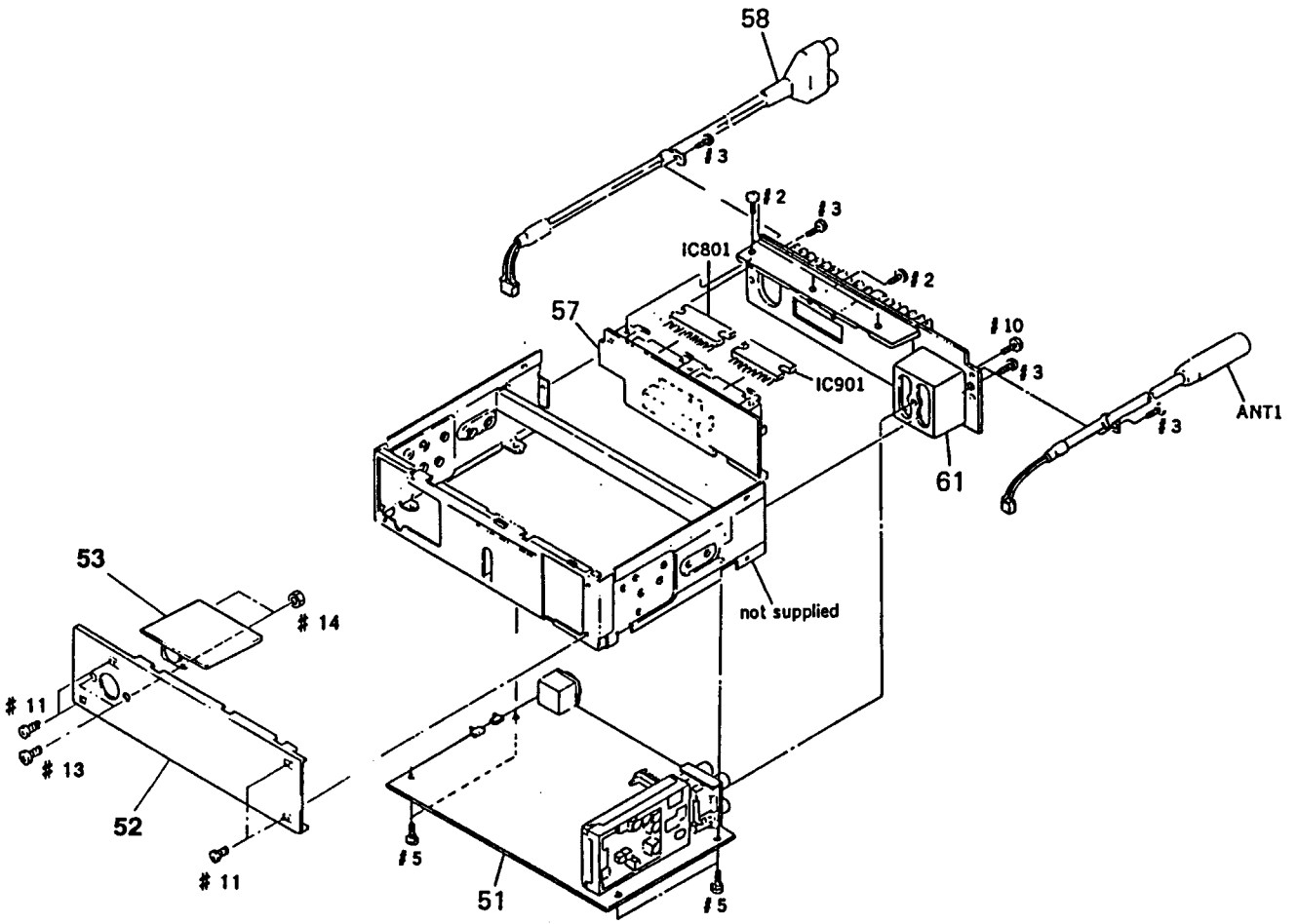
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

2-1. FRONT PANEL/CASE



Page	XTC-U200/U200RDS/U201RDS				XTC-F11RDS			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
43	4	3-378-909-01	BUTTON (WM)					
	13	3-398-928-01	WINDOW (LCD)		13	3-905-739-01	WINDOW (LCD)	
	14	3-378-923-31	PANEL, FRONT (U201RDS)		14	3-378-923-61	PANEL, FRONT	
	18	3-378-920-01	BUTTON (RELEASE)					
	19	3-575-488-00	SPRING, COMPRESSION					
	* 20	A-3222-434-A	DISPLAY BOARD, COMPLETE		* 20	A-3222-645-A	DISPLAY BOARD, COMPLETE	
	22	3-378-921-01	PANEL, FRONT BACK					
	* 28	3-378-937-01	LABEL, MODEL NUMBER (AEL) (U201RDS)					
					30	3-388-334-01	ESCUTCHEON	
					* 31	1-647-985-11	CONNECTOR (A) BOARD	
					* 32	3-388-337-01	SPRING (L)	
					* 33	3-388-336-01	SPRING (R)	
	* CNP701	1-691-557-11	PIN, CONNECTOR 12P					
	LCD701	1-809-754-11	DISPLAY PANEL, LIQUID CRYSTAL		LCD701	1-809-754-21	DISPLAY PANEL, LIQUID CRYSTAL	

2-2. MAIN CHASSIS



Page	XTC-U200/U200RDS/U201RDS				XTC-F11RDS			
44	Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	52	3-378-922-01	PANEL (SUB)		* 52	3-388-335-01	PANEL, FRONT	
	* 53	1-644-121-11	CONNECTOR BOARD		* 53	1-647-986-11	CONNECTOR (B) BOARD	
	54	4-947-204-01	SCREW (M2X4)			----------		
	55	X-3363-885-1	HOLDER (LEVER) ASSY			----------		
	56	3-701-436-11	WASHER, STOPPER			----------		
	59	1-690-485-11	CORD (WITH CONNECTOR) (WM)			----------		
	60	1-696-022-11	CORD (WITH CONNECTOR) (POWER)			----------		

DISPLAY

CONNECTOR (A, B)

SECTION 3
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- Hardware (# mark) list is given in the last of this parts list.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description				Remark
*	A-3222-645-A	DISPLAY BOARD, COMPLETE				
		**********				
		< LIQUID CRYSTAL DISPLAY >				
LCD701	1-809-754-21	DISPLAY PANEL, LIQUID CRYSTAL				
		Refer to XTC-U201RDS for except on aforesaid parts.				
**********						
*	1-647-985-11	CONNECTOR (A) BOARD				
		**********				
		< CAPACITOR >				
C851	1-102-112-00	CERAMIC	330PF	10%	50V	
C852	1-102-112-00	CERAMIC	330PF	10%	50V	
C853	1-102-112-00	CERAMIC	330PF	10%	50V	
C854	1-102-112-00	CERAMIC	330PF	10%	50V	
C855	1-161-772-11	CERAMIC	0.1MF	10%	25V	
C856	1-161-772-11	CERAMIC	0.1MF	10%	25V	
		< CONNECTOR >				
CNP851	1-569-184-11	SOCKET, CONNECTOR 13P				
* CNP852	1-506-994-11	PIN, CONNECTOR 12P				
		< DIODE >				
D851	8-719-109-89	DIODE MTZJ-5.6ES-B2				
		< IC >				
IC851	8-759-240-50	IC TC4050BP				
		< TRANSISTOR >				
Q851	8-729-281-52	TRANSISTOR 2SC1815Y				
		< RESISTOR >				
R851	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R852	1-249-419-11	CARBON	1.5K	5%	1/4W	F
		< SWITCH >				
SW851	1-692-037-31	SWITCH, KEY BOARD				
**********						

Ref. No.	Part No.	Description				Remark
*	1-647-986-11	CONNECTOR (B) BOARD				
		**********				
		< CAPACITOR >				
C857	1-161-772-11	CERAMIC	0.1MF	10%	25V	
C858	1-161-772-11	CERAMIC	0.1MF	10%	25V	
		< CONNECTOR >				
CN854	1-569-184-42	SOCKET, CONNECTOR 13P				
		< DIODE >				
D852	8-719-109-89	DIODE MTZJ-5.6ES-B2				
		< IC >				
IC852	8-759-240-50	IC TC4050BP				
		< TRANSISTOR >				
Q852	8-729-281-52	TRANSISTOR 2SC1815Y				
		< RESISTOR >				
R853	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R854	1-249-417-11	CARBON	1K	5%	1/4W	F
R855	1-249-417-11	CARBON	1K	5%	1/4W	F
R856	1-249-417-11	CARBON	1K	5%	1/4W	F
R857	1-249-417-11	CARBON	1K	5%	1/4W	F
**********						
		ACCESSORIES & PACKING MATERIALS				
		**********				
*	3-388-665-01	INDIVIDUAL CARTON				
**********						
		**********				
		HARDWARE LIST				
		**********				
#11	7-621-255-45	SCREW +P 2X6				
#12	7-621-255-50	SCREW +P 2X8				
#13	7-682-547-04	SCREW +B 3X6				
#14	7-684-023-04	NUT, N3, TYPE 2				
#15	7-685-534-19	SCREW +BTP 2.6X8 TYPE N-S				

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Sony Corporation
Mobile Electronics Group

XTC-U200/U200RDS/U201RDS

SERVICE MANUAL

US Model
Canadian Model
E Model
XTC-U200

AEP Model
XTC-U200RDS

AEP Model
UK Model
XTC-U201RDS

Photo : XTC-U200

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION 9 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 30 to 20,000 Hz with no more than 1% total harmonic distortion.

Other Specifications

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	3.2 – 8 ohms
Maximum power output	20 W × 4 (at 4 ohms)* * Measured at 14.4 V

Tuner section

FM

Tuning range	XTC-U200 (US, Canadian) 87.5—107.9MHz XTC-U200 (E)/U200RDS/U201RDS 87.5—108MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	12 dBf (75 ohms)
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 70 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	30 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

AM (MW/LW)

Tuning range	XTC-U200 (US, Canadian) 530—1,710kHz XTC-U200 (E) 531—1,602kHz (at 9 kHz setp) 530—1,620kHz (at 10 kHz step) AM tuning intrval: 9kHz/10kHz switchable
	XTC-U200RDS 531—1,602kHz XTC-U201RDS MW : 531—1,602kHz LW : 153—281kHz
Antenna terminal	External antenna connector
Intermediate frequency	450 kHz
Sensitivity	XTC-U200/U200RDS 30 μV XTC-U201RDS MW: 30 μV LW: 50 μV

General

Output lead	Power antenna relay control lead Power amplifier control lead
Tone controls	Bass ±10 dB at 100 Hz Treble ±10 dB at 10 kHz
Loudness	+10 dB at 100 Hz +6 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 158 mm ($7^1/_8 \times 2 \times 6^1/_4$ in.) (w/h/d), not incl. projecting parts and controls
Mounting dimensions	Approx. 182 × 53 × 148 mm ($7^1/_4 \times 2^1/_8 \times 5^7/_8$ in.) (w/h/d), not incl. projecting parts and controls
Weight	Approx. 1.3 kg (2 lb. 14 oz.)
Accessories supplied	Mounting hardware (1 set) Power connecting cord (1) Front panel case (1)

Design and specifications subject to change without notice.

MICROFILM

CHANGER CONTROL RECEIVER

SONY®

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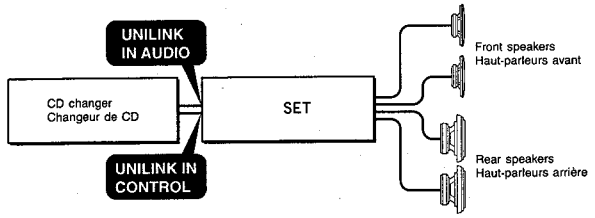
SECTION 1
GENERAL

This section is extracted from instruction manual.

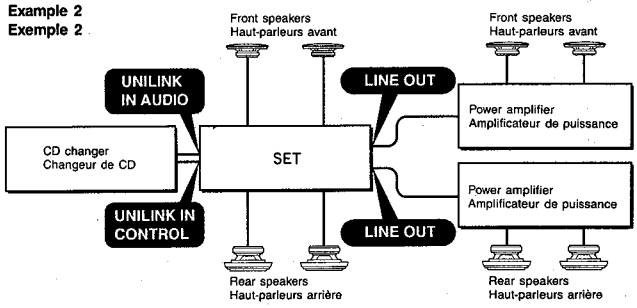
Connections

Connection Diagram/Schéma de connexion

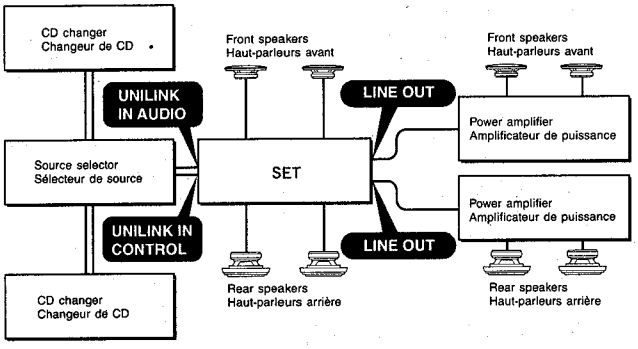
Example 1
Exemple 1



Example 2
Exemple 2



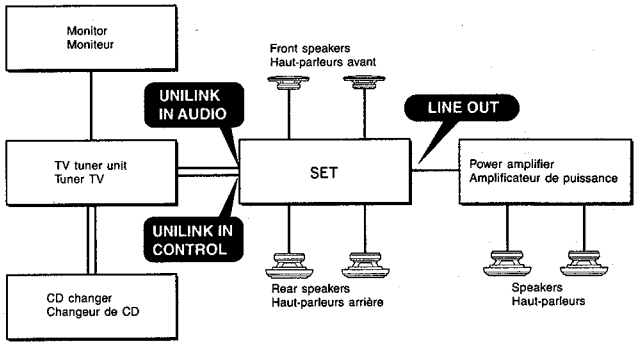
Example 3
Exemple 3



If you connect two or more CD changers, the source selector XA-U20 or XA-U40 (not supplied) is required.

Si deux changeurs de CD ou plus sont utilisés, le sélecteur de source XA-U20 ou XA-U40, (non fourni), est requis.

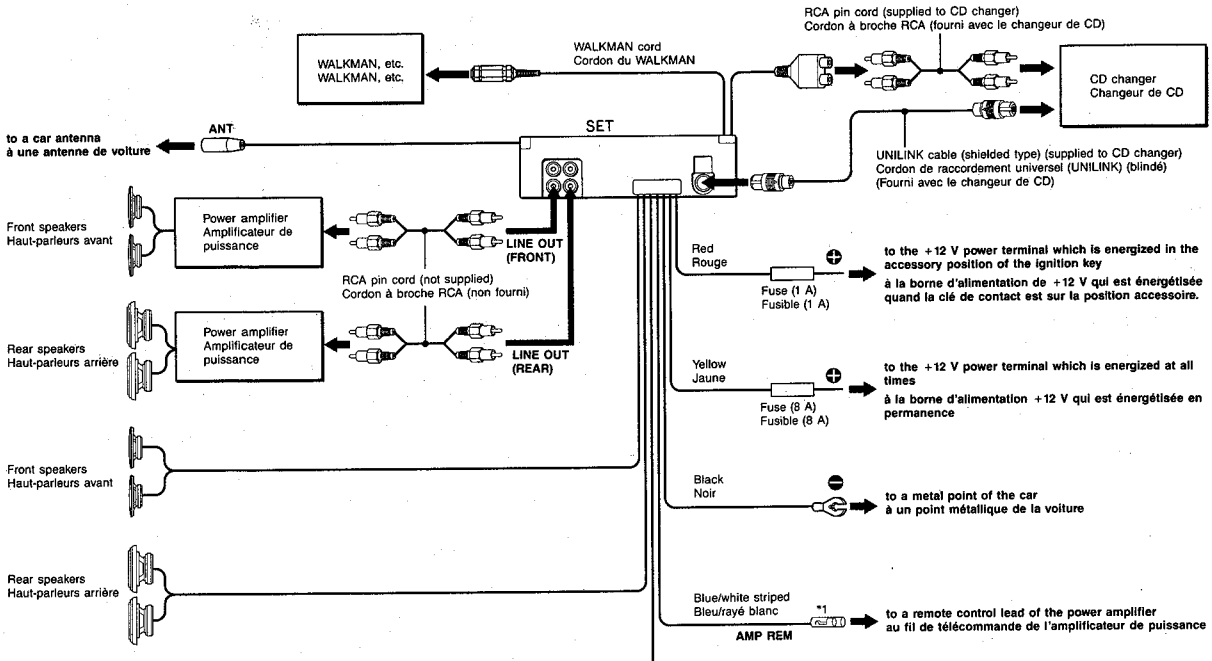
Example 4 (XTC-U200 (US, Canadian))
Exemple 4



See the operating instructions of the TV tuner unit XT-U500V (not supplied) for details.

Se reporter au mode d'emploi du tuner TV XT-U500V (non fourni) pour plus de détails.

Connections of Example 2/Connexions de l'exemple 2



*1 Max. supply current 0.3 A
Courant maximum 0,3 A

*2 Max. supply current 0.1 A
Courant maximum 0,1 A

Press the reset button on the front panel after completing the connections.

Notes on the control leads

- The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) function.
- A power antenna without relay box cannot be used with this unit.

Les connexions achevées, appuyer sur la touche de réinitialisation sur le panneau avant.

Remarques sur les fils de contrôle

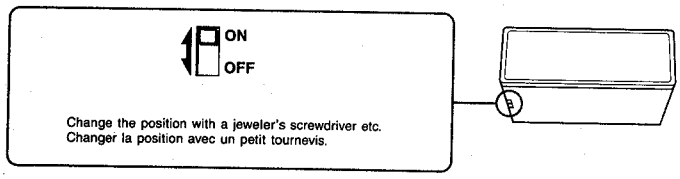
- Le fil de contrôle de l'antenne électrique (bleu) fournit un courant continu de 12 volts quand le tuner est mis sous tension ou quand la function ATA (activation automatique de tuner) est mise en service.
- Une antenne électrique sans boîtier de relais ne peut être utilisée avec cet appareil.

When the Unit is Used in a Car with No Accessory Position on the Ignition Key
— POWER SELECT Switch

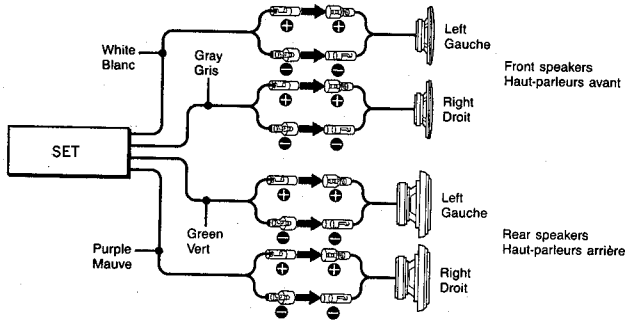
The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear **if the unit is used in a car with no accessory position on the ignition key.**
To avoid this battery wear when using the unit in such a car, **set the POWER SELECT switch located on the bottom of the unit to the OFF position, then press the reset button on the front panel.** The illumination is reset to stay off while the unit is not being played.

Quand l'appareil est utilisé dans une voiture dont la clé de contact ne possède pas de position accessoire
— Sélecteur POWER SELECT

L'éclairage du panneau avant est réglé en usine de façon à s'allumer même quand l'appareil ne fonctionne pas.
Cependant, ce réglage risque d'épuiser la batterie **si l'appareil est utilisé dans une voiture dont la clé de contact ne possède pas de position accessoire.**
Pour éviter ce désagrément, **commuter le sélecteur POWER SELECT situé sur le fond de l'appareil sur OFF, puis appuyer sur la touche de réinitialisation du panneau avant.** L'éclairage est réinitialisé pour rester éteint quand l'appareil n'est pas utilisé.



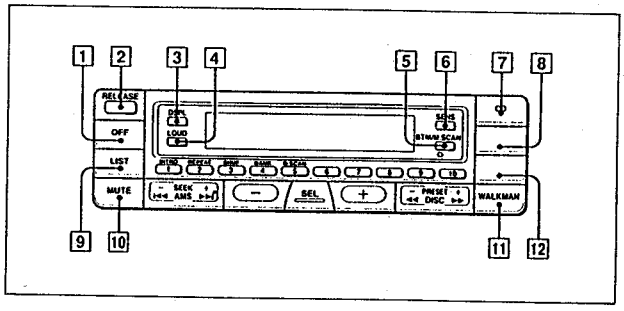
Speaker Connection/Connexion des haut-parleurs



Notes on speaker connection
- Use speakers with an impedance of 3.2 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.

Remarques sur la connexion des haut-parleurs
- Utiliser des haut-parleurs avec une impédance de 3,2 à 8 ohms et de puissance adéuqate, sinon ils risqueraient d'être endommagés.
- Ne pas connecter les bornes du système de haut-parleurs au châssis de la voiture et ne pas raccorder les bornes du haut-parleur droit aux bornes du haut-parleur gauche.
- Ne pas essayer de connecter les haut-parleurs en parallèle.

Location and Function of Controls



1 **OFF button**
Press to turn off the unit.

2 **RELEASE (front panel release) button**

3 **DSPL (display change/time setting) button**

4 **LOUD (loudness) button**
Press to reinforce the bass and treble especially when listening at a low volume level. To go back to the normal volume level, press it again.

5 **BTM/M.SCAN (best tuning memory/memory scan) button**

6 **SENS (sensitivity) button**

7 **CD (disc play/CD changer select*) button**
* When the optional Sony CD Changers are connected.

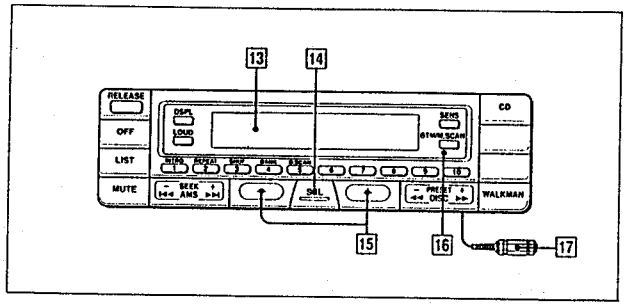
8 FM/AM (radio on/band select) button
(XTC-U200 (US, Canadian)/U200RDS)
FM/MW/LW (radio on/band select) button
(XTC-U201RDS)
FM (radio on) button
(XTC-U200 (E))

9 **LIST (custom-file list) button**

10 **MUTE button**
Press to mute the sound momentarily. Press again to restore the previous volume level. This button will also be canceled in the following cases:
— when the ⊖ or OFF button is pressed.
— when the ignition key of your car has been turned to the OFF position for more than eight seconds.

11 **WALKMAN button**

12 **TV/VIDEO (television/video select) button**
(XTC-U200 (US, Canadian))
AF/TA (Alternative Frequency/Traffic Announcement) button
(XTC-U200RDS/U201RDS)
AM (radio on) button
(XTC-U200 (E))



13 **Display window**

14 **SEL (control mode select) button**
Press to select the desired control mode: BAS (bass), TRE (treble), BAL (balance), FAD (fader) or VOL (volume).

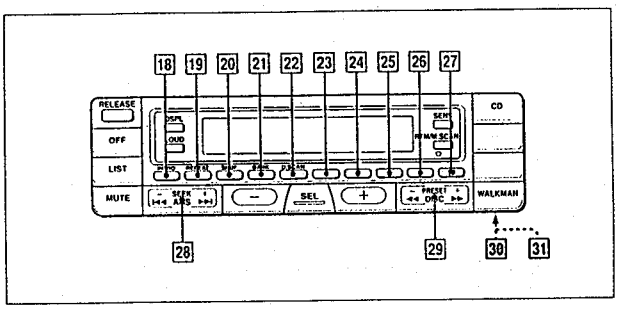
15 **⊖ ⊕ (bass/treble/balance/fader/volume control) buttons**

16 **Reset button**
Press this button when you use this unit for the first time, when you have changed the car battery or when the buttons of this unit do not function.

17 **WALKMAN jack**

Display window	Control mode	⊖ / ⊕	
		Press ⊖	Press ⊕
BAS	Bass control	For less bass	For more bass
TRE	Treble control	For less treble	For more treble
BAL	Balance control	To decrease the right-speakers' volume	To decrease the left-speakers' volume
FAD	Fader control	To decrease the rear-speakers' volume	To decrease the front-speakers' volume
VOL	Volume control	For less volume	For more volume

These buttons normally function as the volume control. To adjust other modes, press the ⊖ or ⊕ button within three seconds after selecting the desired mode with the SEL button. The control mode automatically goes back to the volume control mode in three seconds.



	During disc play	During radio/TV reception
18	INTRO (track cue play) button ㉕	Preset number buttons ⑰ ⑱
19	REPEAT (repeat play) button ㉖	
20	SHUF (shuffle play) button ㉗	
21	BANK button ㉘	
22	D.SCAN (disc scan) button ㉔	
23	—	
24	—	
25	—	
26	—	
27	—	
28	AMS (Automatic Music Sensor) button ㉓	SEEK (automatic tuning) button ⑫
29	DISC (manual search/disc search) button ㉔ ㉕	PRESET (manual tuning) button ⑭

The buttons 18 — 27 function as direct disc selection buttons as well.

30 **POWER SELECT switch**
(located on the bottom of the unit)
See the description about POWER SELECT switch in the Installation/Connections manual.

31 **9K/10K switch**
(located on the bottom of the unit)
See the description about 9K/10K switch in the Installation/Connections manual.

Changing the illumination color

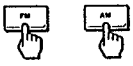
Press the RETRO button while pressing the SEL button.

Selecting the Desired Band

XTC-U200 (US, Canadian)

The band changes in the following order:
FM1 → FM2 →AM.

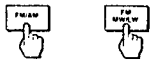
XTC-U200 (E)



The FM band changes in the following order:
FM1 → FM2.

XTC-U200RDS/U201RDS

The band changes in the following order:
FM1 → FM2 → AM (MW → LW).

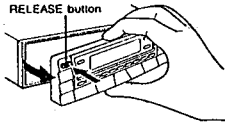


XTC-U200RDS XTC-U201RDS

Detaching and Attaching the Front Panel

Detaching the Front Panel

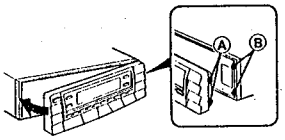
Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel and detach the panel by pulling it towards you as illustrated.



Be sure not to drop the panel when detaching it from the unit.

Attaching the Front Panel

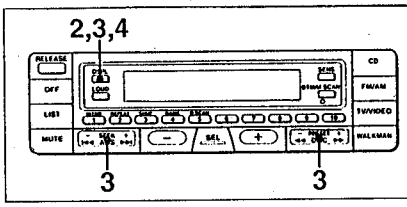
Apply the right hand side of the front panel to the unit by attaching the part Ⓐ of the front panel to the part Ⓑ of the unit as illustrated and push until it clicks.



Do not press hard or give excessive pressure to the display window of the front panel.

Notes
- Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.
- Do not press the front panel hard against the unit when attaching it to the unit. It can be easily attached by pressing it lightly against the unit.
- Never leave the detached front panel in your car if it is parked in direct sunlight as there could be a considerable rise in temperature inside the car.
- When you carry the front panel with you, put it in the supplied front panel case.
- The display window may become warm while the unit is operated, however, this is not a sign of a malfunction.

Setting the Clock

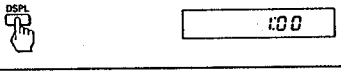


The clock has a 12-hour digital indication.

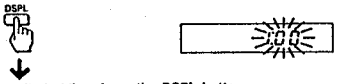
For example, set it to 10:08.

1 Turn the ignition key to the ON position.

2 Press the DSPL button if the clock indication does not come on.



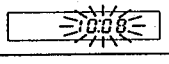
3 Press the DSPL button for more than two seconds.



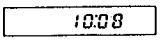
While holding down the DSPL button

Press ◄◄ SEEK AMS ►► to set the hour digits.
(to go back) (to go forward)

Press ◄◄ PRESET DISC ►► to set the minute digits.
(to go back) (to go forward)

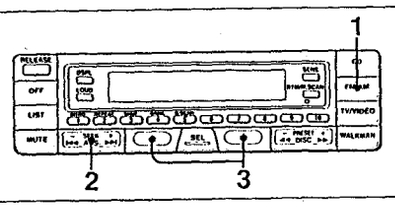


4 The clock starts activating when you take your finger off the DSPL button.



Note
If the POWER SELECT switch of the unit is set to the OFF position, the clock cannot be set unless the power is turned on. Set the clock after you turn on the radio.

Searching for the Stations Automatically
—Automatic Tuning

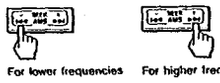


If you do not know the frequency of the station you wish to tune in, it is useful to use the Automatic Tuning function.

1 **Select the desired band.**

See page 5

2 **Press the SEEK button.**

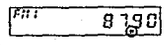


For lower frequencies For higher frequencies

The scanning stops when a station is received. Press the button repeatedly until the desired station is received.

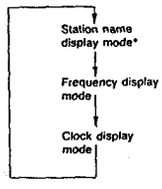
3 **Adjust the volume.**

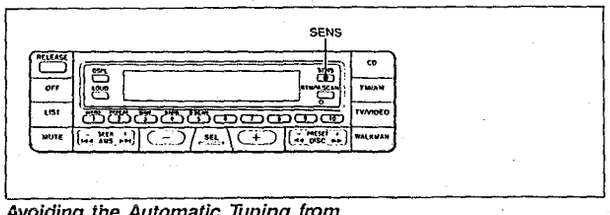
While receiving FM broadcasting



The "ST" indication will appear when an FM stereo program with sufficient signal strength is tuned in. The program will be received in stereo.

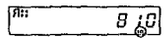
Getting the clock indication while listening to the radio
Press the DSPL button. Each time you press the button, the display mode changes as follows:





Avoiding the Automatic Tuning from Stopping on Stations Too Frequently
—Local Seek Mode

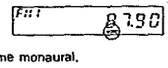
Press the SENS button to get the "LCL" indication.



The mode changes to the local seek mode where only the stations with relatively strong signals are tuned in. It functions only when the Automatic Tuning is in operation.

If FM Stereo Broadcasting is Difficult to Receive—*Monaural Mode*

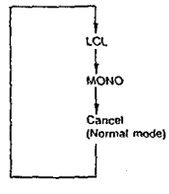
Press the SENS button to get the "MONO" indication.



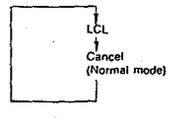
The sound improves, but it will become monaural.

Each time you press the SENS button, the mode changes as follows:

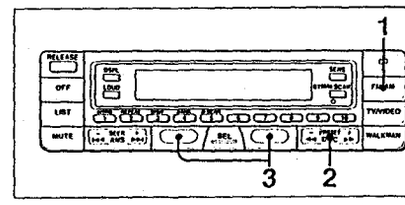
While receiving FM broadcasting



While receiving AM broadcasting



Tuning in by Adjusting the Frequency
—Manual Tuning

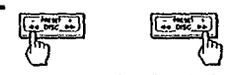


Use the Manual Tuning function if you know the frequency of the desired station.

1 **Select the desired band.**

See page 5

2 **Press the PRESET button for more than two seconds.**



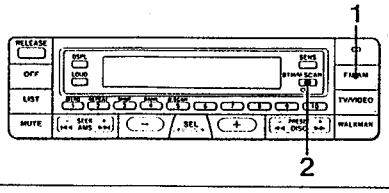
For lower frequencies For higher frequencies

3 **Adjust the volume.**

PREVENTING ACCIDENTS!
While you are driving, the use of the Automatic Tuning and the BTM function is recommended in favor of the Manual Tuning.

Memorizing the Stations Automatically

—BTM (Best Tuning Memory) Function



Clearest receiving stations are automatically searched and memorized on each band (FM1, FM2 and AM). Up to 10 stations on each band can be stored on the preset number buttons 1 to 10 in the order of frequency.

1 Select the desired band.

See page 5

2 Keep the BTM button pressed for more than two seconds.

BTM/M.SCAN

The receivable frequencies of FM1 and FM2 are the same Therefore, 20 stations can be memorized on FM.

Checking in Order, All the Stations Stored in the Memory — Memory Scan Function

BTM/M.SCAN

(Press lightly.)

The tuner will receive in order, all the stations stored in the memory for five seconds each.

To cancel

Press the M.SCAN button lightly once more. The memory scan will be canceled and you will be able to listen to the station currently being received.

Note

There may be cases where even the stations which are stored in the memory cannot be received due to weak signals in the vicinity of your car.

The BTM function — how this function operates

This function starts by searching stations from the lowest frequency of the currently tuned in band. When a station is located, it will be stored in the memory on the preset number button whose number is indicated on the display window. If there is no preset number indicated, it will be stored in the memory on the preset number button 1 onward. It continues to store the stations in the memory until all the preset number buttons are occupied.

For example, if the FM1 band was selected, it will continue until the preset number button 10 on the FM2 band is occupied.

When all the preset number buttons are occupied with the memories before the highest receivable frequency is searched, the unit will start searching for higher frequencies from where it was left off. This is to check if there are any more stations with clearer receptions than the ones already stored in the memory.

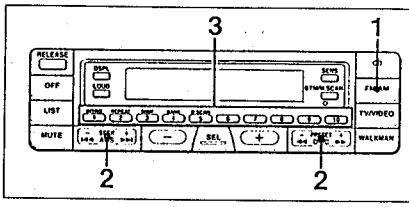
If a station with a clearer reception is found, the unit will store it in the memory in place of a station with inferior reception.

Lastly, it rearranges all the stations in the order of frequency from the lowest and stores them in the memory. The whole operation is now completed. The stations with clearer receptions are stored in the memory on the preset number buttons in the order of frequency.

Notes

- There may be cases where there are not enough receivable stations due to the lack of stations in the vicinity or weak broadcasting signals. In such cases, the BTM operation may stop without all the buttons being occupied with memories.
- If you start the BTM operation from the FM1 band, it will continue to store stations in the memory on the FM2 band. Care must be taken if you wish to keep the stored stations on the FM2 band.
- If you start the BTM operation from the FM2 band, it will stop when all the memories on the FM2 band are occupied. It will not continue to the FM1 band.

Memorizing Only the Desired Stations



Up to 10 stations on each band (FM1, FM2 and AM) can be stored in the memory in order of your choice.

For example, store a station on the preset number button 1.

1 Select the desired band.

See page 5

2 Tune in the station which you wish to store on the preset number button (page 12 or 14).

or

3 Keep the preset number button pressed for about two seconds until the "MEM" indication comes on the display window.

INTRO

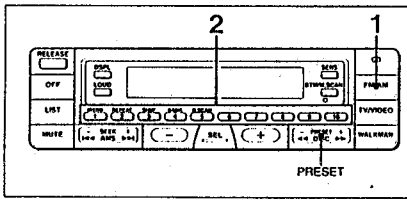
The number of the preset number button of which you are pressing now comes on the display window. When the "MEM" indication comes on, the station is stored in the memory and the operation is now completed. The "MEM" indication goes off after a while.

Repeat the same procedure to store other stations.

Only one station per band (FM1, FM2 and AM) can be stored in the memory on each preset number button

If you try to store another station on the same preset number button, the previously stored station will be erased.

Receiving Stations Stored in the Memory



1 Select the desired band.

See page 5

2 Press the preset number button lightly on which the desired station is to be stored.

INTRO

Notes

- There may be cases where even the stations which are stored in the memory cannot be received due to weak signals in the vicinity of your car.
- If you keep pressing the preset number button for more than two seconds, the currently received station will be memorized. To receive the previously memorized station, make sure that the preset number button is pressed lightly.

Receiving in Order the Stations Stored in the Memory—Preset Search Function

(Press lightly.)

The number will advance in the following order:

1 → 2 → 3 → ... → 8 → 9 → 10 → 1 → ...

(number of the preset number buttons)

(Press lightly.)

The number will reverse in the following order:

1 → 10 → 9 → ... → 4 → 3 → 2 → 1 → ...

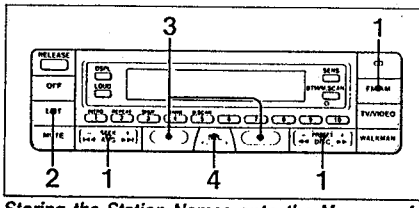
Note

The PRESET button also functions as the manual tuning button if it is kept pressed for more than two seconds. Therefore, if you wish to use this button as a preset search button, be sure to press it lightly.

Displaying the Name of Each Station

—Station Memo Function

(XTC-U200)



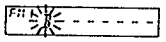
You can store the names of radio stations in the memory of the tuner. The name of station can be displayed on the display window while it is tuned in. You can store the names of TV stations in the same way. The steps described below can be applied to the TV operation as well.

Storing the Station Names onto the Memory of the Tuner

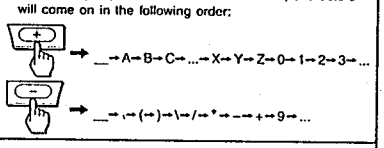
1 Tune in a station whose name you wish to register.

2 Press the LIST button for more than two seconds to enter the name edit mode.

3 Press either the ⊖ or ⊕ button to select the desired characters and numbers.



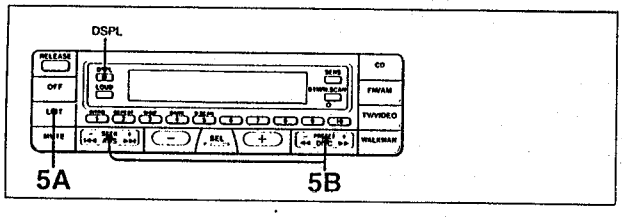
Each time you press the ⊖ or ⊕ button, characters will come on in the following order:



4 Press the SEL button after locating the desired character or number.

The flashing part will move to the next space on the right. Repeat steps 3 and 4 to enter the entire name. Up to eight characters can be used per name.

Notes
- If you press the SEL button when the eighth character (farthest right character) is flashing, the flashing part goes back to the first character (farthest left character).
- If you wish to put a blank space after a character, select the "_" (under-bar).

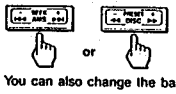


5 To register the name, use one of the following two methods.

A Press the LIST button for more than two seconds.

The unit will go back to the normal mode.

B Tune in another station by pressing the SEEK or PRESET button and repeat the procedures.

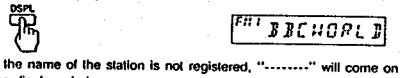


You can also change the band and repeat the process.

Notes
- If you turn off the tuner before you complete this procedure, the name you have just entered will not be registered.
- You can store up to 62 names, but if you try to enter more, the "FULL" indication will come on the display window and you will not be able to register them. You can register more names after erasing some of the existing names.

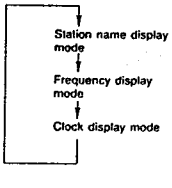
Displaying the Stations Names

While listening to the radio, press the DSPL button to enter the name display mode.



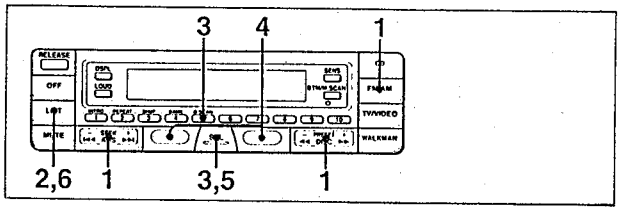
If the name of the station is not registered, "--------" will come on the display window.

Each time you press the DSPL button while listening to the radio
The display mode changes cyclically as follows:



Editing the Registered Station Names

(XTC-U200)



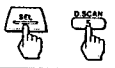
Erasing the Station Names

1 Turn the radio on and tune in any station.

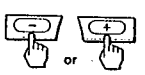
2 Press the LIST button for more than two seconds to enter the name edit mode.

The currently received station will come on the display window.

3 Press the preset number button 5 while pressing the SEL button.



4 Press the ⊖ or ⊕ button to search for the names you wish to erase.



The station names stored in the memory of the tuner will come on the display window in the same order as they were registered*.

5 Press the SEL button for more than two seconds to erase the displayed name.

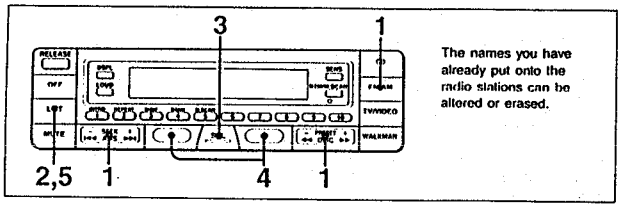
Repeat the steps 4 and 5 to erase the other station names.

6 Press the LIST button for more than two seconds.

The unit will go back to the normal mode.

The alternative method to erase the name
In the step 3 of "Changing the Station Names" (page 22), put the eight under-bars ("_"), then press the LIST button for more than two seconds. The displayed station name will be erased.

*If you have erased some of the title before, they will not come on in the same order as they were registered.



The names you have already put onto the radio stations can be altered or erased.

Changing the Station Names

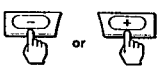
1 Tune in the station whose name you wish to change.

2 Press the LIST button for more than two seconds to enter the name edit mode.

The currently received station will come on the display window.

3 Press the SEL button.

4 Select characters by the ⊖ or ⊕ button.



Tune in other stations using the SEEK or PRESET button and repeat steps 3 and 4, if necessary.

5 Press the LIST button for more than two seconds. The new station names are registered.

Overview of the RDS Function

(XTC-U200RDS/U201RDS)

What is RDS?

The RDS (Radio Data System) is a radio digital information system developed and introduced in 1987 by the EBU (European Broadcasting Union). Using the 57 kHz sub-carrier of FM broadcasting, the RDS enables you to receive a variety of information such as station names and traffic information. It also offers some useful functions such as automatic re-tuning of the best available signal carrying the chosen program.

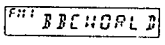
The RDS digital data includes the followings:

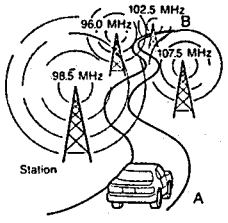
PI	Program Identification
PS	Program Service Name
AF	List of Alternative Frequencies
TP	Traffic Program
TA	Traffic Announcement
PTY	Program Type

The following functions are available with this unit using the RDS data. Refer to the marked pages for the operational instructions.

Station Service Name Display *(page 21)*

This function displays the name of the station which is currently tuned in on the display window.





Automatic Re-tuning — *AF Function (page 22)*

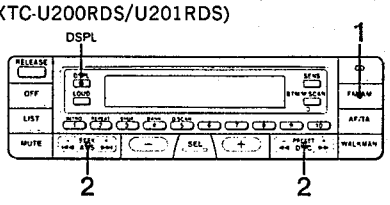
This function automatically re-tunes in a station with a relatively stronger signal within the same broadcasting network using the PI and AF data.
The illustration above shows an example of a car passing through an area with four stations of the same broadcasting network between points A and B.
As the car moves on, the reception frequency of the station in the network changes from 98.5 MHz to 107.5 MHz then to 96.0 MHz and to 102.5 MHz.
By using the AF function, the driver will be able to keep listening to a program in the same broadcasting network without tuning in the station manually every time he enters a different frequency zone between points A and B.

Traffic Announcement Reception — *TA Function (page 24)*

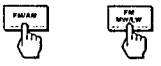
This function searches and stands by for a traffic announcement station using the TP and TA data.
Using this function, the unit automatically searches the station and changes its mode to receive the traffic announcement when the broadcasting starts even if you are listening to an audio source other than the tuner.

Station Name Display

(XTC-U200RDS/U201RDS)

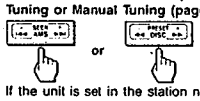


1 **Select FM1 or FM2.**



XTC-U200RDS XTC-U201RDS

2 **Tune in a desired station by using the Automatic Tuning or Manual Tuning (page 12 or 14).**



If the unit is set in the station name display mode and a station transmitting the RDS data is received, the name of that station will be displayed on the display window.

When the "--------" indication appears on the display window in the station name display mode
The received station is not an RDS station.

When the unit is in the frequency display mode and an RDS station is received
The " ♯ " display will come on to indicate that an RDS station is received. To find out the name of the station, press the DSPL button to change the display mode.

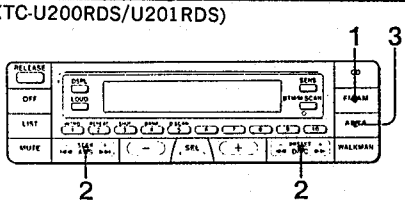
Notes
- The RDS data can be received only on the FM band.
- The RDS functions of this unit will not be activated if the FM station being received is not transmitting the RDS data. It may also not work properly in areas where the RDS transmissions are in the experimental stage.

You can change the display mode by pressing the DSPL button
Each time you press the button, the display mode changes as follows:

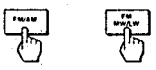
Station name display mode
↓
Frequency display mode
↓
Clock display mode

Automatic Re-tuning — *AF Function*

(XTC-U200RDS/U201RDS)

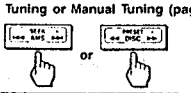


1 **Select FM1 or FM2.**



XTC-U200RDS XTC-U201RDS

2 **Tune in a desired RDS station by using the Automatic Tuning or Manual Tuning (page 12 or 14).**



3 **Press the AF/TA button to get the "AF" indication.**

If the signal level of the tuned in RDS station falls below a certain point, the unit will begin to search for an alternative station with a stronger signal in the same network from the AF data (List of Alternative Frequencies). If a stronger signal station is found, the unit re-tunes in the station.

Notes
- When the "AF" indication appears on the display window, only the RDS stations can be tuned in by the Automatic Tuning.
- If the tuned in RDS station is not transmitting the AF data, this function will not work.
- If you press the AF/TA button while the AM (MW, LW) band is tuned in, the FM1 band will be automatically selected.

The AF/TA button
Each pressing on the button changes the function cyclically as follows:

AF
↓
TA*
↓
AF/TA
↓
None

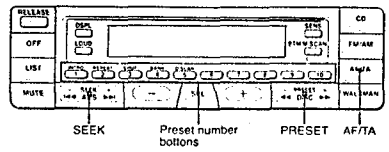
*See page 24 about the TA function.

Network Stations Memory

When the unit stores an RDS station transmitting the AF data on a preset number button, it stores not only its frequency but also its PI and AF data. The AF data carries the information of the list of the frequencies of the stations within the same broadcasting network. The unit will store the data in its memory whether the AF function is activated or not.

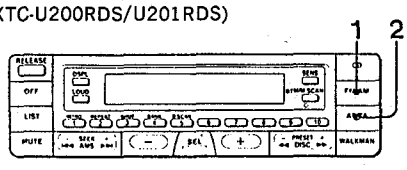
Getting the Stored RDS Stations in Tune from the Broadcasting Networks

Be sure to press the preset number buttons after pressing the AF/TA button to activate the AF function. The AF function will select a better signal station by re-tuning within the network stations. If you press the preset number buttons without activating the AF function, you will not be able to use this function. In this case, you will only get the individual stations which were tuned in on the previous occasion. The unit will not re-tune to the other stations in the network even if they are stored in the memory.



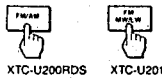
Receiving Traffic Announcement — *TA Function*

(XTC-U200RDS/U201RDS)



Receiving a Traffic Announcement Station

1 **Select FM1 or FM2.**



XTC-U200RDS XTC-U201RDS

2 **Press the AF/TA button to get the "TA" indication.**

The search for a traffic announcement station will start. When an RDS station transmitting the TP data is found, the search stops and the "TP" indication will come on the display window.

The "TA" indication will flash while the traffic announcement broadcasting is on the air. It will stop flashing when the broadcasting is over.

To search another RDS station transmitting traffic announcement
Press the SEEK button while the "TA" indication is still on the display window.

Notes
- Do not activate the TA function in an area where there is no traffic announcement broadcasting service available. If you do so, the unit will keep searching for it and other stations cannot be tuned in.
- If you activate the TA function while the AM (MW, LW) band is tuned in, the FM1 band will be automatically selected and the unit will start searching for a traffic announcement station.

"TP" indication
This indicates that the currently tuned in RDS station offers a traffic announcement service.

Standing by for Traffic Announcement

Press the AF/TA button to get the "TA" indication while you are listening to an audio source other than the tuner.

The playback continues while the unit searches for a traffic announcement station.

When a station is found:
The "TP" indication will come on the display window.

↓

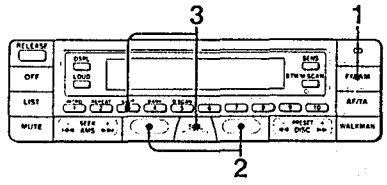
When a traffic announcement broadcasting starts:
The "TA" indication will start flashing. Whatever audio source you have selected will temporarily stop playing and the traffic announcement will be heard.

↓

When the broadcasting is over:
The selected audio source will resume playing.

To cancel the stand-by mode
Press the AF/TA button to turn off the "TA" indication.

Changing the display to that of the frequency or station name
Press the DSPL button a few times. While the frequency or station name is being displayed, the SEEK, PRESET buttons and preset number buttons will function in the same way as they do during a radio reception.



Traffic Announcement is Heard at the Preset Volume Level

When a traffic announcement broadcast starts, you can hear it at the preset volume level even if the volume control on the front panel has been turned down. (If you are listening to other sources with higher volume level, the level will not change.) The preset volume level can be set in the following manner:

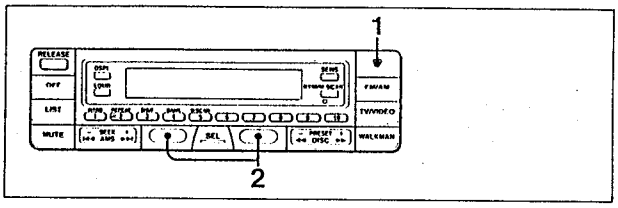
1 **Select FM1 or FM2.**
2 **Adjust the volume to the desired level.**
3 **Press the preset number button 3 while pressing the SEL button.**

PTY (alarm) Data Reception

In case of an emergency, or in a situation where there may be danger from a natural disaster in the area, the RDS stations will transmit the PTY data information to warn drivers that they are in danger. The data includes the character display and the interruption signal for automatically turning on the radio. **This data can be received while the AF or TA function is being activated.** If the unit receives the PTY data from an RDS station while you are listening to an audio source other than the tuner, the "AF" indication on the display window will start flashing and the unit will stop playing the selected audio source. The radio will be automatically turned on to receive the emergency announcement from the station.

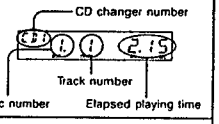
Listening to the CD Play

—When Optional Sony CD Changers are Connected

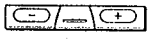


1 Press the CD button.

CD play will start.



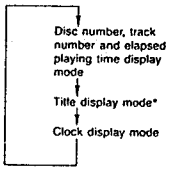
2 Adjust the volume.



If it is set in the normal playing mode, after the end of a disc, the disc with the next number shown will be automatically played. If two or more CD changers are connected, after the end of the last disc, the first disc in the CD changer with the next number shown will be played. The order of the CD play can be rearranged by changing the playing modes. For details, see "Playing in Other Modes". (page 27)

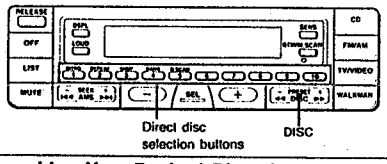
Getting the clock display while listening to a CD

Press the DSPL button. Each time you press the button, the display mode will change cyclically as follows:



* It is necessary to put titles onto the discs in advance. See pages 30 for details.

Locating a Desired Disc, Track or Part of a Track



You can use this function to quickly locate your desired disc, track or part of the track.

Searching Your Desired Discs in Turn

—Disc Search

Press the DISC button lightly during CD play.

To search the previous disc numbers →

(Press lightly)

To search the disc numbers ahead →

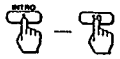
(Press lightly)

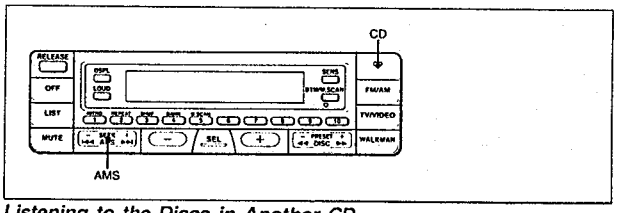
You can search a disc by displaying the titles of the discs registered with the Custom File Function. For details, see page 30.

Note
Make sure that you press the DISC button lightly. If you keep it pressed, the unit will enter the Manual Search mode.

Locating a Disc Directly

Press the direct disc selection button of your choice for more than two seconds during CD play.





Listening to the Discs in Another CD Changer *(when two or more CD changers are connected)*

Press the CD button during CD play.

The CD changer number changes.

Locating the Beginning of a Track

—AMS Function

Press the AMS button during CD play.

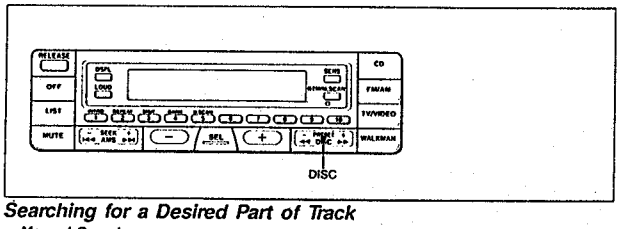
To listen to the current track again from the beginning →

If the button is kept pressed, the beginnings of the previous tracks will be located.

To listen to the next track from the beginning →

If the button is kept pressed, the beginnings of the succeeding tracks will be located.

Note
When you keep pressing the AMS button and come to either the beginning or end of a disc, you will not be able to go any further.



Searching for a Desired Part of Track

—Manual Search

Keep the DISC button pressed during CD play.

To go back →

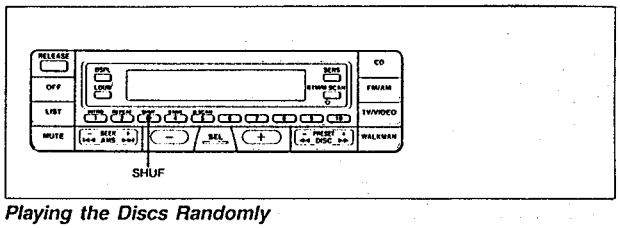
(Keep on pressing.)

To go ahead →

(Keep on pressing.)

The elapsed playing time of the track will be displayed on the display window during the manual search.

Playing in Other Modes



Playing the Discs Randomly
—Shuffle Play Functions

Playing the tracks on the currently selected disc randomly —Disc shuffle play

Press the SHUF (3) button to get the "SHUF 1" indication during CD play.

When all the tracks on a disc have been played, it goes on to the next disc.

Playing every track on every disc in the currently selected CD changer randomly—CD changer shuffle play

Press the SHUF (3) button to get the "SHUF 2" indication during CD play.

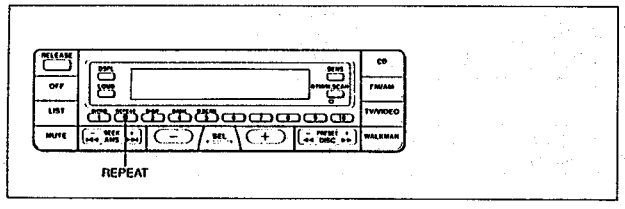
Playing every track on every disc in all CD changers connected randomly—All shuffle play (when two or more CD changers are connected)

Press the SHUF (3) button to get the "SHUF 3" indication during CD play.

The function of the SHUF button changes cyclically as follows:

SHUF 1
(Disc shuffle)
↓
SHUF 2
(CD changer shuffle)
↓
SHUF 3*
(All shuffle)
↓
Cancel
(Normal CD play)

* All shuffle play (SHUF 3) mode functions only when two or more CD changers are connected to the unit. When only one changer is connected, the "SHUF 3" indication will not be displayed. In this case, if you press the SHUF button again while the "SHUF 2" indication is being displayed, the shuffle play will be canceled.



Playing a Disc Repeatedly —Repeat Play Functions

Playing the currently selected track repeatedly —Track repeat

Press the REPEAT (2) button to get the "REP 1" indication during CD play.

When the track is over, the CD play will be repeated from the beginning of that track.

Playing the currently selected disc repeatedly —Disc repeat

Press the REPEAT (2) button to get the "REP 2" indication during CD play.

When the last track of the currently selected disc is over, the CD play will be repeated from the beginning of that disc.

Playing the discs in the currently selected CD changer repeatedly—CD changer repeat (when two or more CD changers are connected)

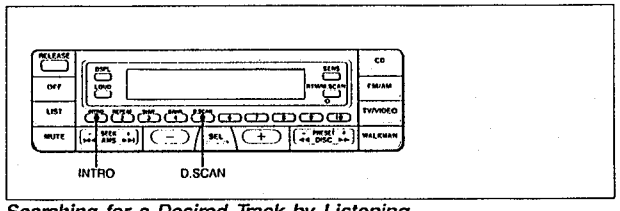
Press the REPEAT (2) button to get the "REP 3" indication during CD play.

When the last disc of the currently selected CD changer is over, the CD play will be repeated from the first disc in the currently selected CD changer.

The function of the REPEAT button changes cyclically as follows:

REP 1
(Track repeat)
↓
REP 2
(Disc repeat)
↓
REP 3*
(CD changer repeat)
↓
Cancel
(Normal CD play)

* CD changer repeat (REP 3) mode functions only when two or more CD changers are connected to the unit. When only one changer is connected, the "REP 3" indication will not be displayed. In this case, if you press the REPEAT button again while the "REP 2" indication is being displayed, the repeat play will be canceled.



Searching for a Desired Track by Listening to the First 10 Seconds of Each Track
—Intro Scan Function

Press the INTRO (1) button during CD play.

The first 10 seconds of all the tracks on the currently selected disc will be played in order.
When the first 10 seconds of the last track on a disc is played, it will move on the the next disc.
When the first 10 seconds of the last track on the last disc in the first CD changer has been played, the first disc in the next CD changer will be played (only when two or more CD changers are connected).

When you find the desired track
Press the INTRO button once more. The intro scan function will be canceled and you can continue to listen to the track.

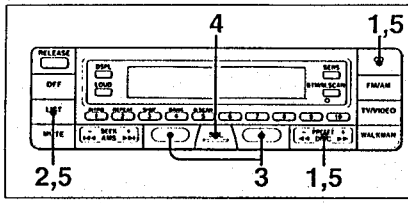
Searching for a Desired Disc by Listening to the First 10 Seconds of Each Disc
— Disc Scan Function

Press the D.SCAN (5) button during CD play.

The first 10 seconds of all the discs in the CD changer will be played in order.

When you find the desired disc
Press the D.SCAN button once more. The disc scan function will be canceled and you can continue to listen to the disc.

Displaying the Title of Each Disc
—Disc Memo Function



You can put a title of your own choice to a disc (one title per disc). The title can be displayed on the display window while the disc is being loaded and played.

Putting Your Personalized Titles onto the Discs

1 Play the disc that you wish to title.

2 Press the LIST button for more than two seconds to enter the name edit mode.

Name edit mode

3 Press either the ⊖ or ⊕ button to select the desired characters and numbers.

Each time you press the ⊖ or ⊕ button, characters will come on in the following order:

⊕ → _ → A → B → C → ... → X → Y → Z → 0 → 1 → 2 → 3 → ...

⊖ → _ → , → (−) → \ → / → * → − → + → 9 → ...

4 Press the SEL button after locating the desired character or number.

The flashing part will move to the next space on the right. Repeat steps 3 and 4 to enter the entire titles. Up to eight characters can be used per disc.

Notes
- If you press the SEL button when the eighth character (farthest right character) is flashing, the flashing part goes back to the first character (farthest left character).
- If you wish to put a blank space after a character, select "_" (under-bar).

5 To register the title, use one of the following methods ① through ④.

① Press the LIST button for more than two seconds.

The unit will go back to the normal CD playing mode.

② Press the LIST button lightly.

(Press lightly.)

The unit enters the PLAY/SKIP mode in which the play and skip modes can be set. (Continue to step 4 in "Setting the Play and Skip Modes on the Discs" of page 34.)

③ Press the DISC button lightly.

(Press lightly.)

You can change the disc and continue to put the titles to the discs.

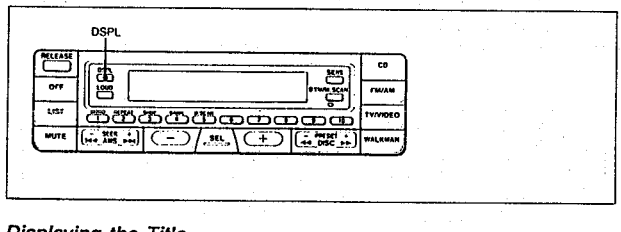
④ Press the CD button (only when two or more CD changers are connected).

You can go to the next CD changer and the unit will go back to the normal playing mode.

Where are the contents of the custom file stored?
The information registered in the custom file will be stored in the memory of currently selected CD changer. You can play a custom-filed disc in another CD changer and use the custom file function as long as they are connected to the currently selected CD changer with the UNILINK system.

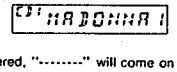
You can register the maximum of 110 discs on one CD changer
If you try to register more than 110 discs, the unit will display "FULL" on the display window and will not accept the command for custom-filing. In this case, you will have to erase the memory of the other discs before you enter the new ones. See page 38 for details on erasing the memory.

When two or more CD changers are connected
The information registered in the custom file can be retrieved by other CD changers using the communication signals sent between the CD changers provided that they are connected by UNILINK cables.



Displaying the Title

While the disc is playing, press the DSPL button to enter the title display mode.



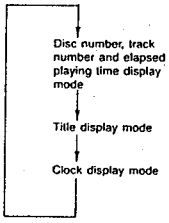
If the title of a disc is not registered, "--------" will come on the display window.

While loading the discs
Whatever the display mode is, the indication automatically changes as follows:

Title of the disc (two seconds) → Disc and track number (two seconds) → Currently selected display mode

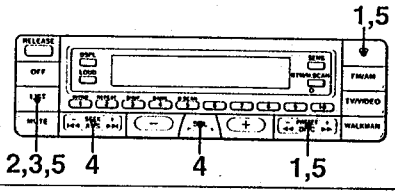
The registered titles of the discs may not come on the display window immediately during loading. This occurs because the unit displays the title after identifying the disc by reading the TOC* (Table of Contents) information of the disc. Therefore, while the CD changer is loading the disc for the first time, the registered title of the disc cannot be displayed. Once the disc has been loaded and played, the TOC information would have been read and the title will be displayed even while the disc is being loaded.

Each time you press the DSPL button while the disc is playing
The indication on the display window will change cyclically as follows:



* The TOC information of the disc contains the total length of playing time and the codes to search the beginning and end of each track, and so on.

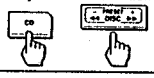
Playing Selected Tracks on a Disc —Bank Function



You can listen to only the desired tracks by using this function.

Setting the Play and Skip Modes on the Discs

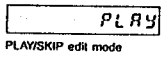
1 Play the disc to which you wish to set these modes.



2 Press the LIST button for more than two seconds and put the titles onto the discs.

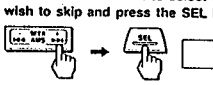
See page 30 for details about putting on a title. If the title has already been registered, go to step 3.

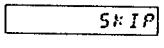
3 Press the LIST button lightly to enter the PLAY/SKIP edit mode.
When the unit enters the PLAY/SKIP edit mode, the indication on the display window will look like the illustration below.



PLAY/SKIP edit mode

4 Press the AMS button to select the track number you wish to skip and press the SEL button.





The indication changes from "PLAY" to "SKIP". If you wish to return to "PLAY", press the SEL button again.

Repeat the operation in this step to set either the "PLAY" or "SKIP" mode on all the tracks.

Notes
- When the title is not registered, you cannot enter the PLAY/SKIP edit mode even if you press the LIST button.
- You can only set the "SKIP" mode onto up to 24 tracks. If a disc has more than 24 tracks, you will not be able to set the SKIP mode on the tracks after the 24th track.
- You cannot set the SKIP mode onto all of the tracks on a disc.

5 To register the settings, use one of the following methods ① through ④.

① Press the LIST button for more than two seconds.

The unit will go back to the normal CD playing mode.

② Press the LIST button lightly.

(Press lightly.)

The unit re-enters the name edit mode. See page 30.

③ Press the DISC button lightly.

(Press lightly.)

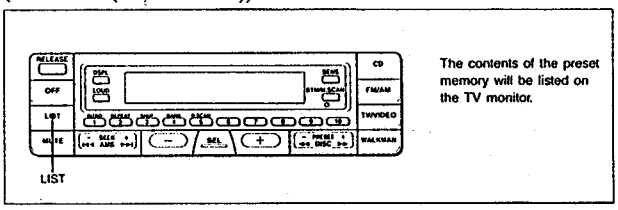
You can change the disc and continue to put the titles to the discs.

④ Press the CD button (only when two or more CD changers are connected).

You can go to the next CD changer and the unit will go back to the normal playing mode.

Displaying the Contents of the Preset Memory on TV Monitor — *List up Function*

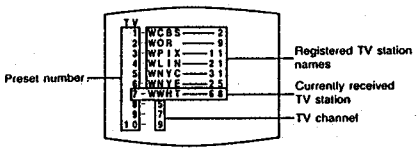
(XTC-U200 (US, Canadian))



The contents of the preset memory will be listed on the TV monitor.

During TV reception

(Press lightly.)



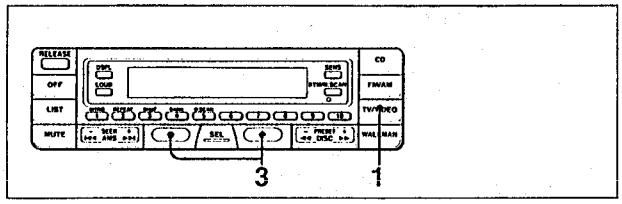
- If the name of station is registered, that name will be displayed and if it is not registered, the channel number of the station will be displayed. See page 19 for memorizing the station names.
- The name of station currently tuned in will be displayed in magenta.
- The monitor screen will automatically return to the TV display after a few seconds.

Notes
- You cannot get the TV display while the list is displayed.
- The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode.
- You can use the same procedure to have the contents of the preset memory displayed on the TV monitor while listening to the radio or a disc.

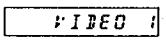
Watching Video

— When the Optional TV Monitor and TV Tuner Unit are Connected

(XTC-U200 (US, Canadian))



1 Press the VIDEO button to get "VIDEO 1" indication.



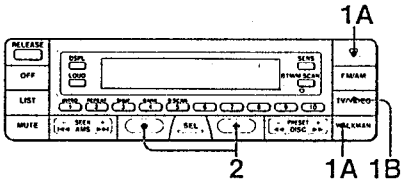
2 Play back the video.

3 Adjust the volume.

Watching TV or Video While Listening to CD or Audio Equipment Connected to WALKMAN Jack

—Simultaneous Play Function

(XTC-U200 (US, Canadian))



While watching TV or video, you can listen to a CD or an external audio equipment connected to the WALKMAN jack (Simultaneous Play function). When the unit is in the simultaneous play mode, you can still listen to the original sound of TV or video through headphones plugged in to the TV monitor.

1 There are two methods by which simultaneous play can be made.

A During TV reception or video playback:

Press CD or WALKMAN for more than two seconds.

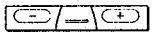
The sound of TV or video will be turned off and the sound of CD or an audio equipment connected to the WALKMAN jack can be heard instead. However, you can continue to watch the picture on the TV monitor.

B During CD play or while the audio equipment connected to the WALKMAN jack is being played:

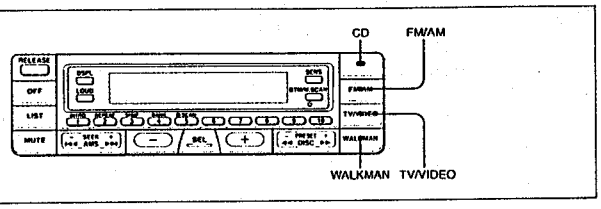
Press TV/VIDEO for more than two seconds.

The TV picture will come on the TV monitor and you can continue to listen to the sound of CD or the connected audio equipment.

2 Adjust the volume.



Notes
- A WALKMAN or other audio equipment can be connected to the WALKMAN jack of this unit with the optional connecting cord.
- The simultaneous play function will not work while listening to the radio.
- The contents of the preset memories or CD information cannot be listed when the unit is in the simultaneous play mode.



To listen to the sound of TV or video while the unit is in the simultaneous play mode

You can listen to the sound of TV or video even when the unit is in the simultaneous play mode through headphones connected to the monitor.

Getting Back to the Normal Mode by Canceling Simultaneous Play Mode

To listen to an audio equipment connected to the WALKMAN jack	Press for more than two seconds.
To listen to a CD	Press for more than two seconds.
To watch TV or video	
To listen to the radio	

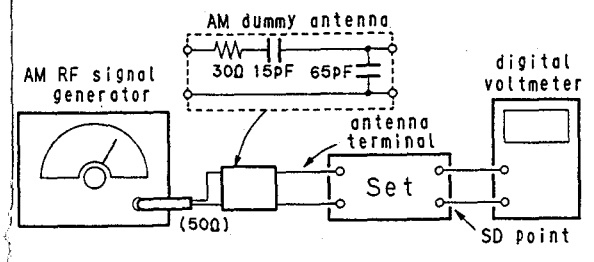
The simultaneous play mode will be canceled and the unit will go back to the TV reception or video playback mode.
If the EJECT button on a CD changer is pressed when the unit is in the simultaneous play mode with CD.

SECTION 2
ELECTRICAL ADJUSTMENTS

AM Auto Scan/Stop Level Adjustment

Setting :

BAND switch : AM (XTC-U200/U200RDS)
MW (XTC-U201RDS)



Carrier frequency : 1000kHz (US, Canadian model)
999kHz (AEP, UK, E, Germany model)
30% amplituede modulation by 400Hz signal
Output leve : 30dB (31.6μV)

Procedure :

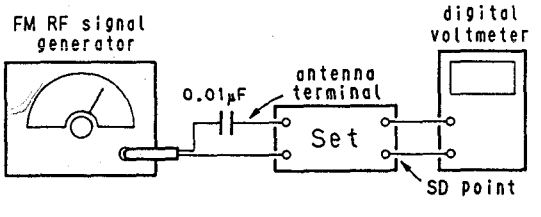
1. Tune the set to 1000kHz (US, Canadian model) or 999kHz (AEP, UK, E, Germany model).
2. Adjust trimmer resister of inside the tuner unit for changes from low to high reading on the digital voltmeter.
3. When the AM RF signal generator output level is 48 dB (251.2μV), check that the auto scan stopped.

Adjustment Location : tuner unit

FM Auto Scan/Stop Level Adjustment

Setting :

BAND switch : FM



Carrier frequency : 97.9MHz (US, Canadian model)
98MHz (AEP, UK, E, Germany model)
Output level : 25dB (17.8μV)
Mode : mono
Modulation : 1kHz, 75kHz deviation

Procedure :

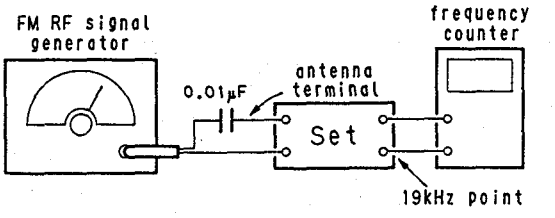
1. Tuse the set to 97.9MHz (US, Canadian model) or 98MHz (AEP, UK, E, Germany model).
2. Adjust trimer resistor of inside the tuner unit for changes from low to high reading on the digital voltmeter.
3. When the FM RF signal generator output level is 29dB (28.2μV), check that the auto scan stopped.

Adjustment Location : tuner unit

Pilot Signal Adjustment

Setting :

BAND switch : FM



Carrier frequency : 97.9MHz (US, Canadian model)
98MHz (AEP, UK, E, Germany model)
Output level : 60dB (1mV)
Mode : stero (pilot signal : ON)
Modulation : 1kHz, 75kHz deviation

Procedure :

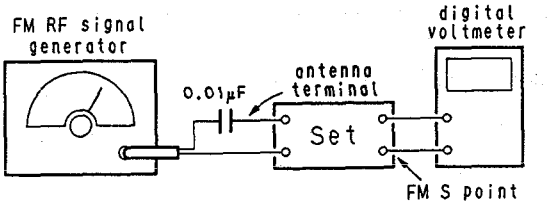
1. Connect the 180kΩ resistor (1-247-885-00) between IC605 pin ㉓ and ground.
2. Tune the set to 1000kHz (US, Canadian model) or 999kHz (AEP, UK, E, Germany model).
3. Adjust RV602 for 19kHz reading on the frequency counter.

Adjustment Location : MAIN board

FM S Meter Adjustment

Setting :

BAND switch : FM



Carrier frequency : 97.9MHz (US, Canadian model)
98MHz (AEP, UK, E, Germany model)
Output level : 35dB (56.2μV)
Mode : mono
Modulation : no modulation

Procedure :

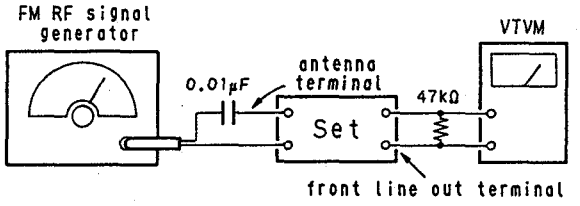
1. Tune the set to 97.9MHz (US, Canadian model) or 98MHz (AEP, UK, E, Germany model).
2. Adjust RV603 for 2V reading on the digital voltmeter.

Adjustment Location : MAIN board

FM Stereo Separation Adjustment

Setting :

BAND switch : FM



Carrier frequency : 97.9MHz (US, Canadian model)
98MHz (AEP, UK, E, Germany model)
Output level : 70dB (3.2mV)
Mode : stereo
Modulation : main ; 1kHz, 33.75kHz deviation (45%)
sub ; 1kHz, 33.75kHz deviation (45%)
19kHz pilot ; 7.5kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV601 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV601 for minimum reading

L-CH Stero separation : Ⓐ—Ⓑ
R-CH Stero separation : Ⓒ—Ⓓ
The separations of both channels should be equal.

Adjustment Location : MAIN board

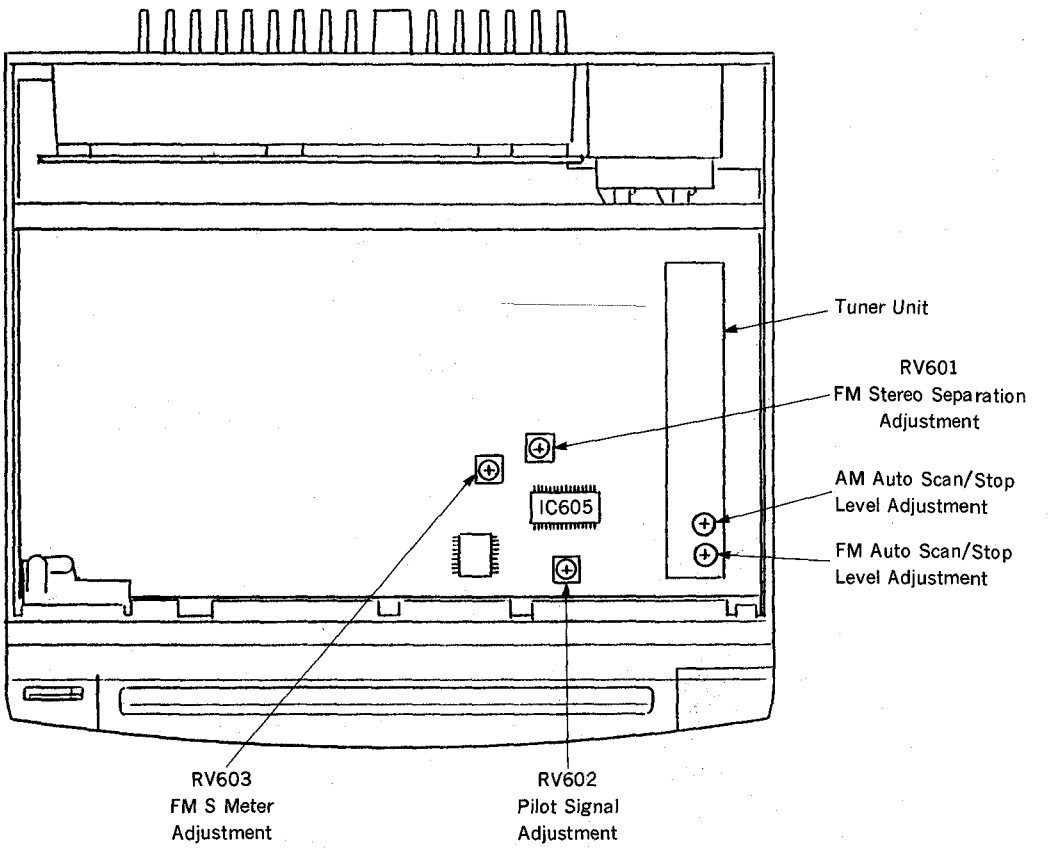
SECTION 3
DIAGRAMS

3-1. PIN DESCRIPTIONS

System Control IC504 (μPD75518GF-040-3B9)

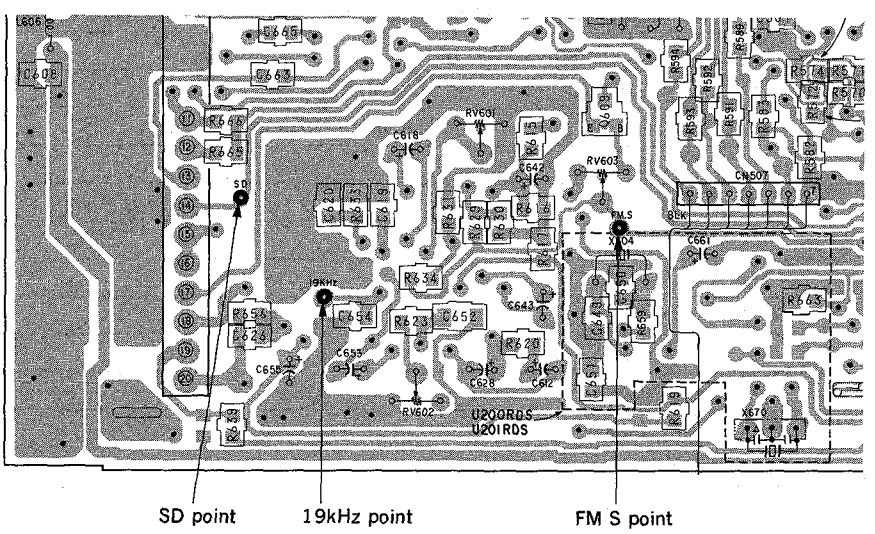
Pin No.	Pin Name	I/O	Function
1	KEY IN0	I	Key input pin
2	VERF	—	VREF
3	VDD	—	VDD
4	VDD	—	VDD
5	KEY ACTIVE	O	"H" when key input is possible.
6	POWER ON	O	Buttton illumination output pin for buttons other than function keys. "H": POWER ON, "L": POWER OFF
7	ILL ON	O	Buttton illumination output pin for function keys. When POWER SERECT is ON "H": ACC ON, "L": ACC OFF. When POWER SERECT is OFF "H": POWER ON, "L": POWER OFF.
8	COLOR	O	Illumination color select output pin. "H": green, "L": amber.
9	MUTE	O	Audio muting signal output pin. "H": during audio muting.
10	AUX MUTE	O	"L" when supplied as an external input of UNILINK IN AUDIO to CD or TV. "H": other functions.
11	N. C	O	Not used.
12	N. C	O	Not used.
13	ANT REM	O	"H": tuner or TV is ON, "L": other source is on.
14	N. C	O	Not used.
15	N. C	O	Not used.
16	LCD INH	O	INH output pin to LCD DRIVER IC.
17	N. C	O	Not used.
18	LCD DATA	O	Data output pin to LCD DRIVER IC.
19	LCD CLK	O	Clock output pin to LCD DRIVER IC.
20	LCD CE	O	CE output pin to LCD DRIVER IC. This output is used as the latch signal to send data.
21	VOL CE	O	CE output pin to electric volume IC. This output is used as the latch signal to send data.
22	PLL CE	O	CE output pin to PLL IC.
23	CLK	O	Clock output pin to electric volume IC and PLL IC.
24	DATA	O	Data output pin to electric volume IC and PLL IC.
25	PLL DATA IN	I	PLL data input pin.
26	N. C	O	Not used.
27	N. C	—	Not used.
28	C. A	—	
29	N. C	—	Not used.
30	N. C	—	Not used.
31	N. C	—	Not used.
32	N. C	—	Not used.
33	GND	—	GND
34	N. C	I	Not used.
35	N. C	I	Not used.
36	N. C	I	Not used.
37	N. C	I	Not used.

Adjustment Location :



Measurement Location :

—main board (Side B)—



Pin No.	Pin Name	I/O	Function
38	ROM DATA	I/O	EEPROM data input/output pin.
39	ROM CLK	O	EEPROM clock output pin.
40	RDS RST	O	"L" when change N value of PLL IC.
41	SYNC	O	Pin which outputs the pulse for determing timing of communication to data line. (UNILINK BUS interface SYNC pin)
42	$\overline{\text{SYS RST}}$	O	Pin witch resets all of slave microcomputers that the connected and are communicating on the UNILINK BUS. Switching this output from "L" to "H" level causes reseting, Usually it is keeping "H".
43	$\overline{\text{BUS ON}}$	I	UNILINK BUS interface BUS ON output pin. Set this output "L" to enable communication on the bus.
44	CLK OUT	O	Serial communication clock output pin. (UNILINK BUS interface Clock output pin)
45	BEEP	O	Not used.
46	$\overline{\text{ACC C}}$	I	Accessory voltage detection pin. "L" : ACC ON, "H" : ACC OFF.
47	$\overline{\text{KEY ACK}}$	I	When this pin detected from "H" to "L", KEY ACTIVE pin set to "H" and key input should be SOURCE position.
48	RDS CLK	I	RDS clock input pin.
49	SIRCS	I	Infrared remote control input pin.
50	DATA IN	I	Serves as both serial data input pin and detection pin for communication request from slave. (UNILINK BUS interface Data input pin)
51	DATA OUT	O	Serial data output pin. (UNILINK BUS interface Data output pin)
52	CLK IN	I	Serial communication clock output pin. (UNILINK BUS interface Clock input pin)
53	BU C	I	Power supply voltage detection pin.
54	GND	—	GND
55	XT1	I	Clock 32kHz
56	XT2	O	
57	IC	—	
58	X1	I	System clock 6MHz
59	X2	O	
60	$\overline{\text{RESET}}$	I	Reset pin.
61	RDS DATA IN	I	RDS data input pin.
62	RDS D. S	I	RDS D start input pin.
63	RDS ERR	I	RDS error input pin.
64	RDS RECEIVE	I	RDS receive input pin.
65	SD	I	SD input pin. "H" : signal is detect
66	$\overline{\text{TEL MUTE}}$	I	Pin which detects a telephone call. This input becomes "L" to mute −20dB audio signal. It becomes "H" to return the signal to its original VOL level.
67	$\overline{\text{ST IN}}$	I	Stereo detection pin. "L" : stereo broadcasting is tuned
68	NOSE	I	Nose presence detection pin. "L" : nose is removed.
69	$\overline{\text{AM ON}}$	O	"L" : AM ON
70	$\overline{\text{FM ON}}$	O	"L" : FM ON

Pin No.	Pin Name	I/O	Function
71	SEL1	O	Audio source select pin.
72	SEL2	O	

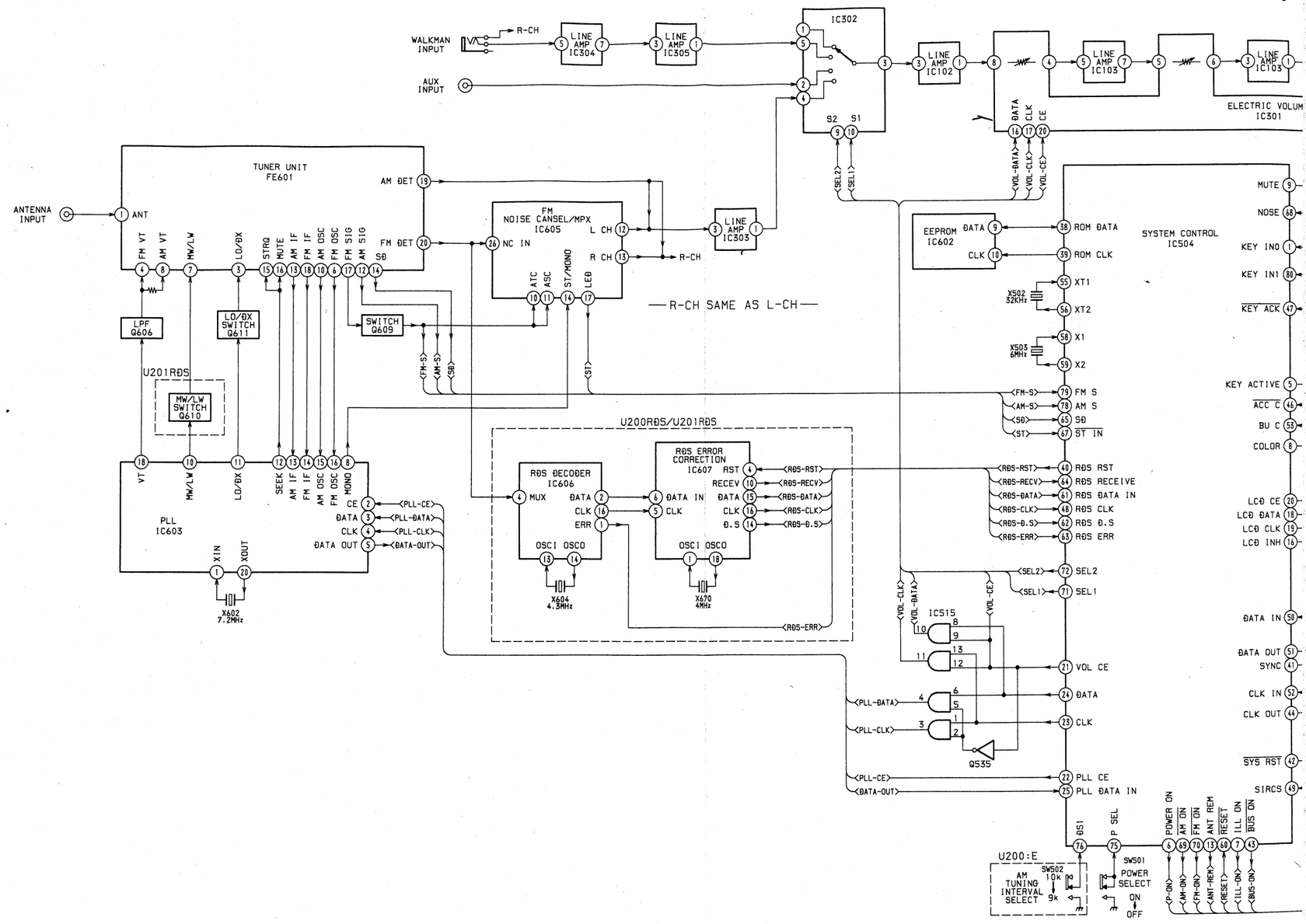
	CD	TAPE	TUNER	reserve	AUX
SEL1	0	0	0	1	1
SEL2	1	0	1	0	1

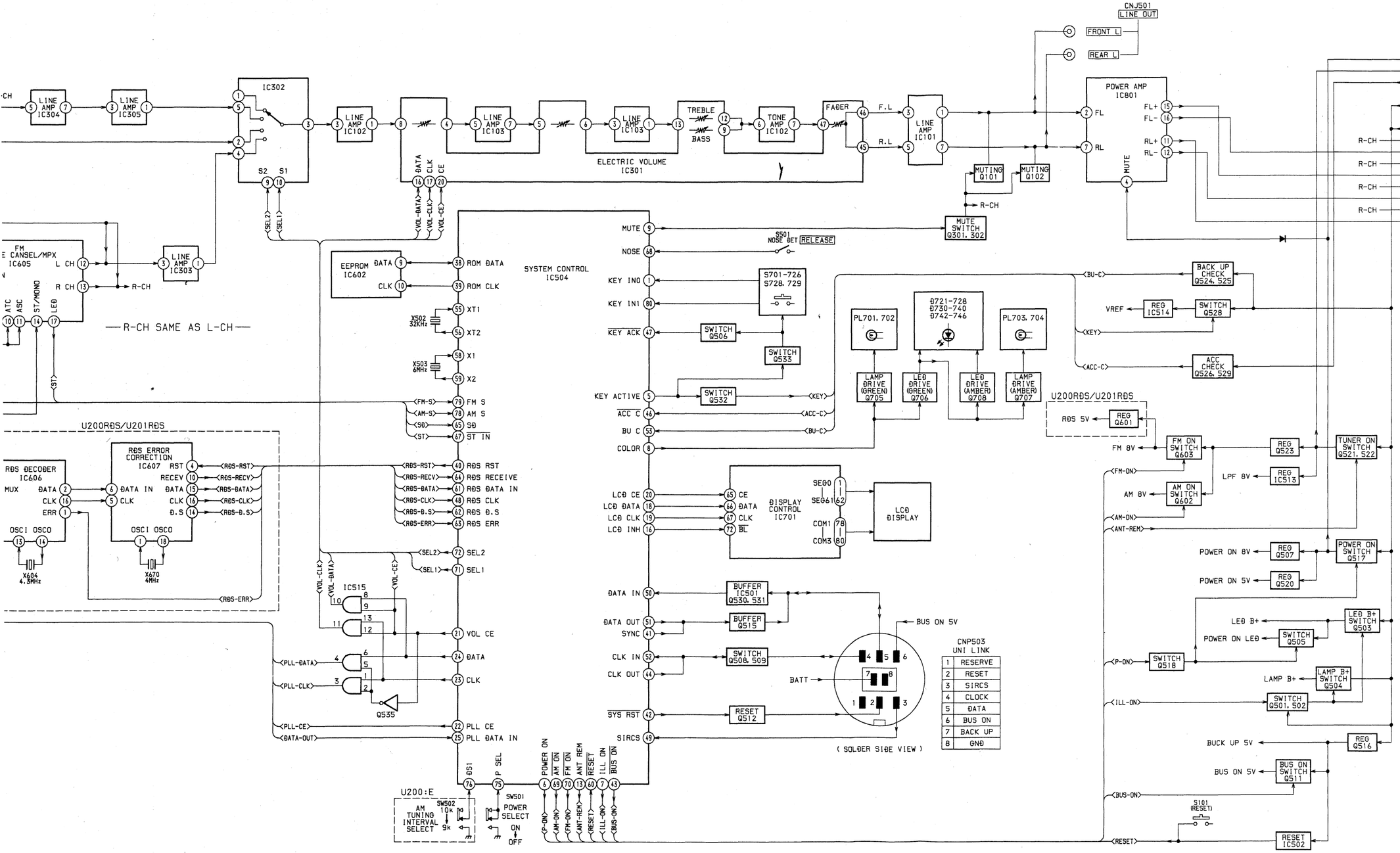
0 : "L" output
1 : high impedance

73	VSS REF	—	VSS REF
74	N. C	I	Not used.
75	P SEL	I	Power select switch (initialization). Set this input "L" to sel setting (to cope with cars without accessory position)
76	DS1	I	Destination setting pin.
77	DS2	I	
78	AM S	I	AM S meter votage detection pin.
79	FM S	I	FM S meter votage detection pin.
80	KEY IN1	I	Key input pin.

I/O	Function
O	Audio source select pin.
O	
	CD TAPE TUNER reserve AUX SEL1 0 0 0 1 1 SEL2 1 0 1 0 1 0 : "L" output 1 : high impedance
—	VSS REF
I	Not used.
I	Power select switch (initialization). Set this input "L" to select POWER SELEHT OFF setting (to cope with cars without accessory position)
I	Destination setting pin.
I	
I	AM S meter votage detection pin.
I	FM S meter votage detection pin.
I	Key input pin.

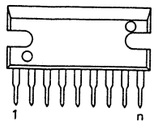
3-2. BLOCK DIAGRAM



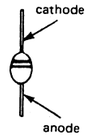

IC302
LINE AMP IC304
LINE AMP IC305
LINE AMP IC102
LINE AMP IC103
LINE AMP IC103
TREBLE
BASS
TONE AMP IC102
FADER
F.L
R.L
LINE AMP IC101
ELECTRIC VOLUME IC301
S2 S1
SEL2
SEL1
DATA
CLK
CE
VOL-DATA
VOL-CLK
VOL-CE
MUTING Q101
MUTING Q102
MUTE SWITCH Q301, 302
R-CH
CNJ501 LINE OUT
FRONT L
REAR L
POWER AMP IC801
FL
RL
MUTE
FL+
FL-
RL+
RL-
CNP801
AMP REM
ANT REM
ACC
GND
BACK UP
GND
BACK UP
REAR R+
FRONT L-
REAR R-
FRONT L+
FRONT R+
REAR L-
FRONT R-
REAR L+
FM CANSEL/MPX IC605
L CH
R CH
ATC
ASC
ST/MONO
LED
ST
R-CH SAME AS L-CH
EEPROM IC602
DATA
CLK
ROM DATA
ROM CLK
SYSTEM CONTROL IC504
X502 32KHz
X503 6MHz
XT1
XT2
X1
X2
FM S
AM S
SD
ST IN
MUTE
NOSE
KEY IN0
KEY IN1
KEY ACK
KEY ACTIVE
ACC C
BU C
COLOR
SS01 NOSE DET RELEASE
S701-726 S728, 729
SWITCH Q506
SWITCH Q533
SWITCH Q532
PL701, 702
D721-728 D730-740 D742-746
PL703, 704
LAMP DRIVE (GREEN) Q705
LED DRIVE (GREEN) Q706
LED DRIVE (AMBER) Q708
LAMP DRIVE (AMBER) Q707
BU-C
VREF
KEY
ACC-C
BACK UP CHECK Q524, 525
REG IC514
SWITCH Q528
ACC CHECK Q526, 529
U200RDS/U201RDS
RDS DECODER IC606
MUX
DATA
CLK
ERR
OSCI OSCO
X604 4.33MHz
RDS ERROR CORRECTION IC607
RST
RECV
DATA IN
CLK
OSCI OSCO
X670 4MHz
RDS-RST
RDS-RECV
RDS-DATA
RDS-CLK
RDS-D.S
RDS-ERR
RDS RST
RDS RECEIVE
RDS DATA IN
RDS CLK
RDS D.S
RDS ERR
SEL2
SEL1
VOL CE
DATA
CLK
PLL CE
PLL DATA IN
IC515
Q535
PLL-DATA
PLL-CLK
PLL-CE
DATA-OUT
LCD CE
LCD DATA
LCD CLK
LCD INH
CE
DATA
CLK
BL
DISPLAY CONTROL IC701
SEG0
SEG61
COM1
COM3
LCD DISPLAY
DATA IN
DATA OUT
SYNC
CLK IN
CLK OUT
SYS RST
SIRCS
BUFFER IC501 Q530, 531
BUFFER Q515
SWITCH Q508, 509
RESET Q512
BUS ON 5V
BATT
CNP503 UNI LINK
1 RESERVE
2 RESET
3 SIRCS
4 CLOCK
5 DATA
6 BUS ON
7 BACK UP
8 GND
(SOLDER SIDE VIEW)
U200:E
AM TUNING INTERVAL SELECT
SW502 10K
9k
SW501
POWER SELECT
ON
OFF
DSI
P SEL
POWER ON
AM ON
FM ON
ANT REM
RESET
ILL ON
BUS ON
P-ON
AM-ON
FM-ON
ANT-REM
RESET
ILL-ON
BUS-ON
U200RDS/U201RDS
RDS 5V
REG Q601
FM 8V
FM ON SWITCH Q603
AM 8V
AM ON SWITCH Q602
LPF 8V
REG Q523
REG IC513
TUNER ON SWITCH Q521, 522
POWER ON 8V
REG Q507
POWER ON 5V
REG Q520
POWER ON SWITCH Q517
LED B+
POWER ON LED
LED B+ SWITCH Q503
SWITCH Q505
SWITCH Q518
LAMP B+
LAMP B+ SWITCH Q504
SWITCH Q501, 502
BUCK UP 5V
REG Q516
BUS ON 5V
BUS ON SWITCH Q511
SI01 (RESET)
RESET IC502

3-3. SEMICONDUCTOR LEAD LAYOUTS

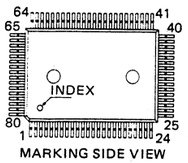
TA8125H



DSA3A4

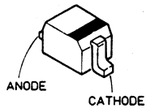


TC9240F
μPD75518GF-040-3B9

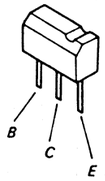


MARKING SIDE VIEW

DTZ5.6B
DTZ6.2
DTZ6.8A
DTZ11
MA111

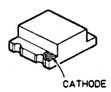


2SB1446
2SD2006
2SD2179

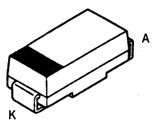


MTZJ4.3B
MTZJ6.2
MTZJ6.2B
MTZJ9.1B
MTZJ12
MTZJ18

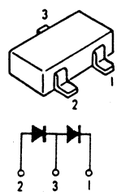
CL-155/PG-CD



SFPB-52



1SS226



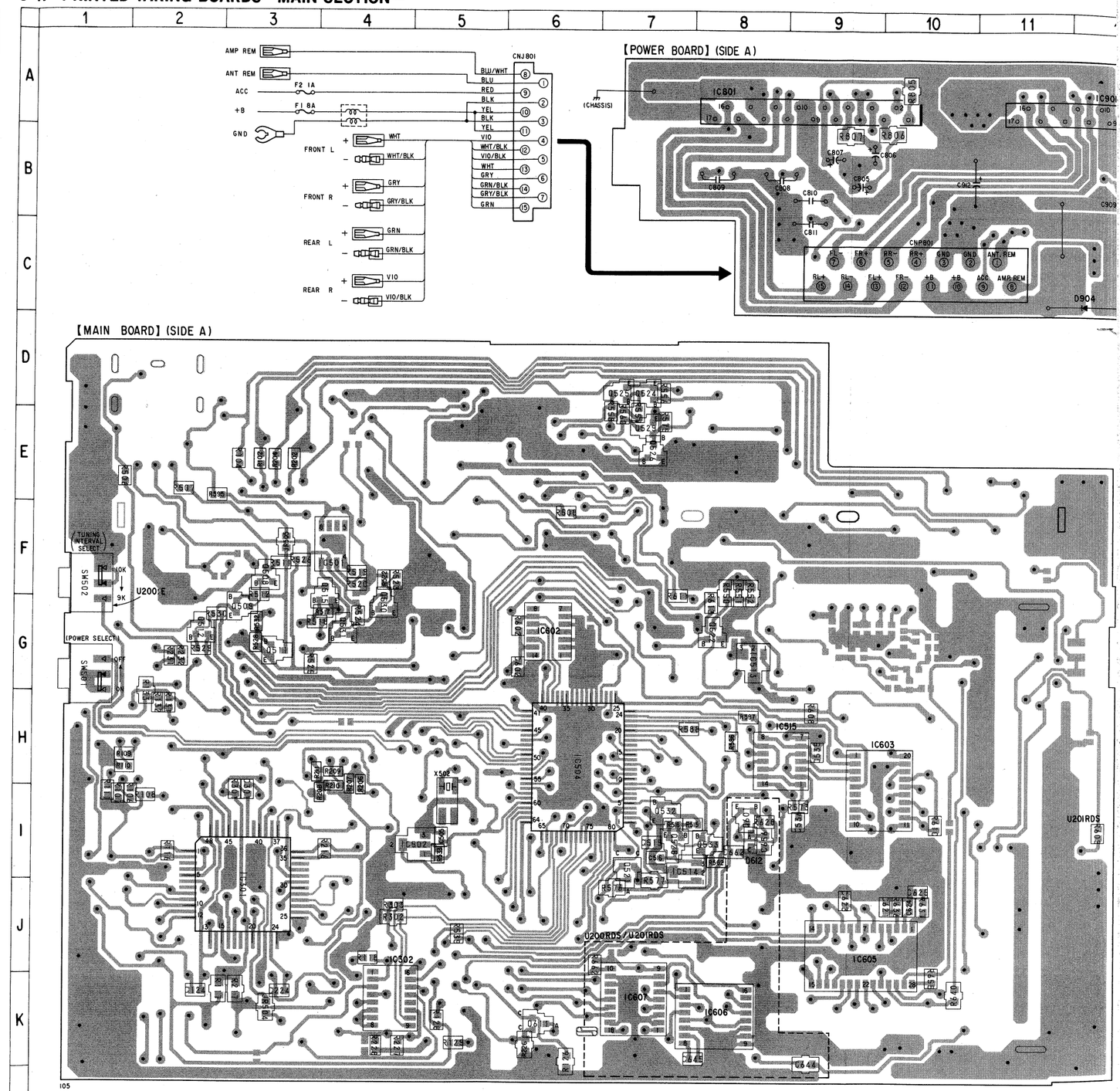
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	D-22	IC501	F-4
D103	K-22	IC502	I-5
D201	D-22	IC504	H-6
D203	K-22	IC513	G-8
D301	F-22	IC514	I-7
D501	E-20	IC515	H-8
D502	E-20	IC602	G-6
D503	E-23	IC603	H-9
D504	E-22	IC605	J-9
D506	F-19	IC606	K-8
D507	F-21	IC607	K-7
D508	E-21	IC801	A-8
D509	E-18	IC901	A-12
D510	D-18		
D511	H-19	Q101	E-21
D512	E-19	Q102	E-22
D513	F-17	Q201	E-21
D515	D-17	Q202	D-21
D516	D-18	Q301	D-20
D517	D-17	Q302	E-20
D519	H-17	Q501	D-20
D521	I-17	Q502	D-20
D532	J-18	Q503	E-20
D533	I-18	Q504	E-20
D534	G-17	Q505	G-20
D535	H-17	Q506	E-19
D536	H-16	Q507	F-19
D537	H-17	Q508	F-3
D538	G-17	Q509	G-3
D539	G-21	Q511	G-3
D578	E-17	Q512	G-2
D609	K-19	Q515	F-4
D610	K-19	Q516	D-18
D611	K-6	Q517	F-20
D612	I-8	Q518	F-19
D808	B-23	Q520	E-19
D809	B-23	Q521	F-16
D810	B-22	Q522	G-8
D811	A-22	Q523	F-17
D904	C-12	Q524	D-7
D908	B-18	Q525	D-7
D909	B-20	Q526	E-7
D910	B-20	Q528	I-7
D911	B-20	Q529	E-7
		Q530	G-4
IC101	I-23	Q531	G-4
IC102	K-22	Q532	I-7
IC103	I-22	Q533	I-8
IC201	H-20	Q535	H-16
IC202	K-21	Q601	I-8
IC203	I-21	Q602	G-17
IC301	J-3	Q603	G-16
IC302	J-4	Q606	H-15
IC303	K-19	Q609	I-16
IC304	F-22	Q610	H-13
IC305	H-23	Q611	G-13

Note:

- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
  (The other lavers' patterns are not indicated.)
- CND: Canadian model
- G : Germany model

3-4. PRINTED WIRING BOARDS—MAIN SECTION—



8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27

D] (SIDE A)

【POWER BOARD】(SIDE B)

【MAIN BOARD】(SIDE B)

CNP503
UNI LINK

1	RESERVE
2	RESET
3	SIRCS
4	CLOCK
5	DATA
6	BUS ON
7	BACK UP
8	GND

【CONNECTOR BOARD】(SIDE A)

【CONNECTOR BOARD】(SIDE B)

U200RDS:G

R639:EXCEPT U200RDS:G
C691:U200RDS:G

3-5. SCHEMATIC DIAGRAM—MAIN SECTION— • Refer to page 40 for IC Block Diagrams

【MAIN BOARD】

IC302 FUNCTION SWITCH

IC102 IC103

IC101 IC201 LINE AMP

IC301 ELECTRIC VOLUME

IC202 IC203

IC304 LINE AMP

IC303 LINE AMP

IC305 LINE AMP

IC602 EEPROM

IC603 PLL

IC605 FM NOISE CANCEL. MPX

IC606 RDS DECODER

IC607 LC7071NM

IC515 SWITCH

Q301 ĐTA124EK MUTE SWITCH

Q302 ĐTC124EK MUTE SWITCH

Q609 2SC2412 SWITCH

Q610 ĐTC124EK MW/LW SWITCH

Q611 ĐTA124EK LOCAL/DX SWITCH

Q601 2SC2412 REG

Q602 2SB1132 FM B+ SWITCH

Q603 2SB1132 AM B+ SWITCH

Q606 2SK536 LPF

Q535 ĐTC124EK SWITCH

* R127, 227
U200 US, CNĐ:2.2K
U200 E/U200RĐS AEP/U201RĐS:8.2K
U200RĐS G:15K

* R639
U200 US, CNĐ:5.6K
U200 E/U200RĐS AEP/U201RĐS:10K

*C610, 611
U200 US, CNĐ:0.022
EXCEPT U200 US, CNĐ:0.018

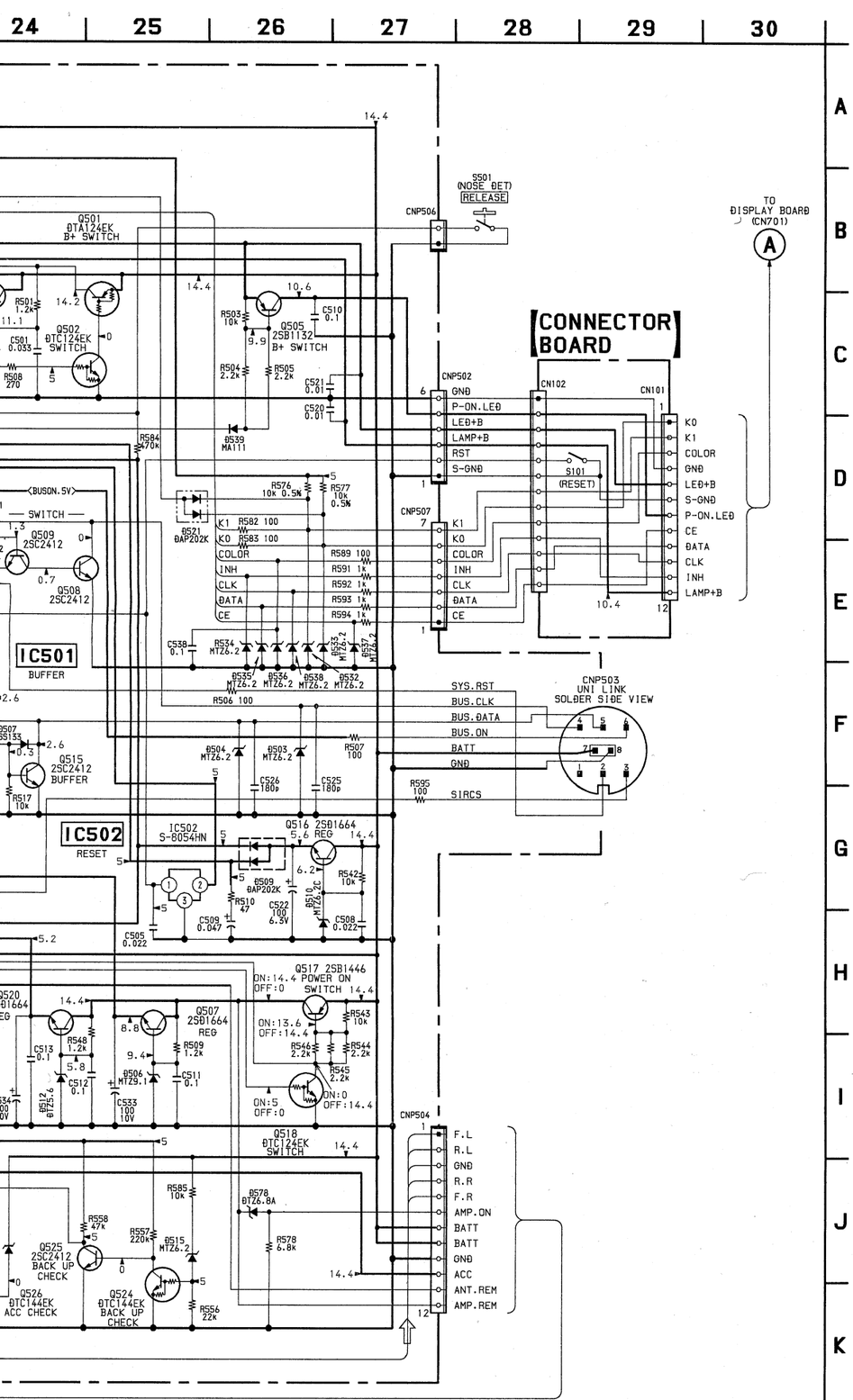
* IC602
U200:X24C04SI
U200RĐS/U201RĐS:X24C16SI

EXCEPT U200RĐS:G

U200RĐS, U201RĐS

105

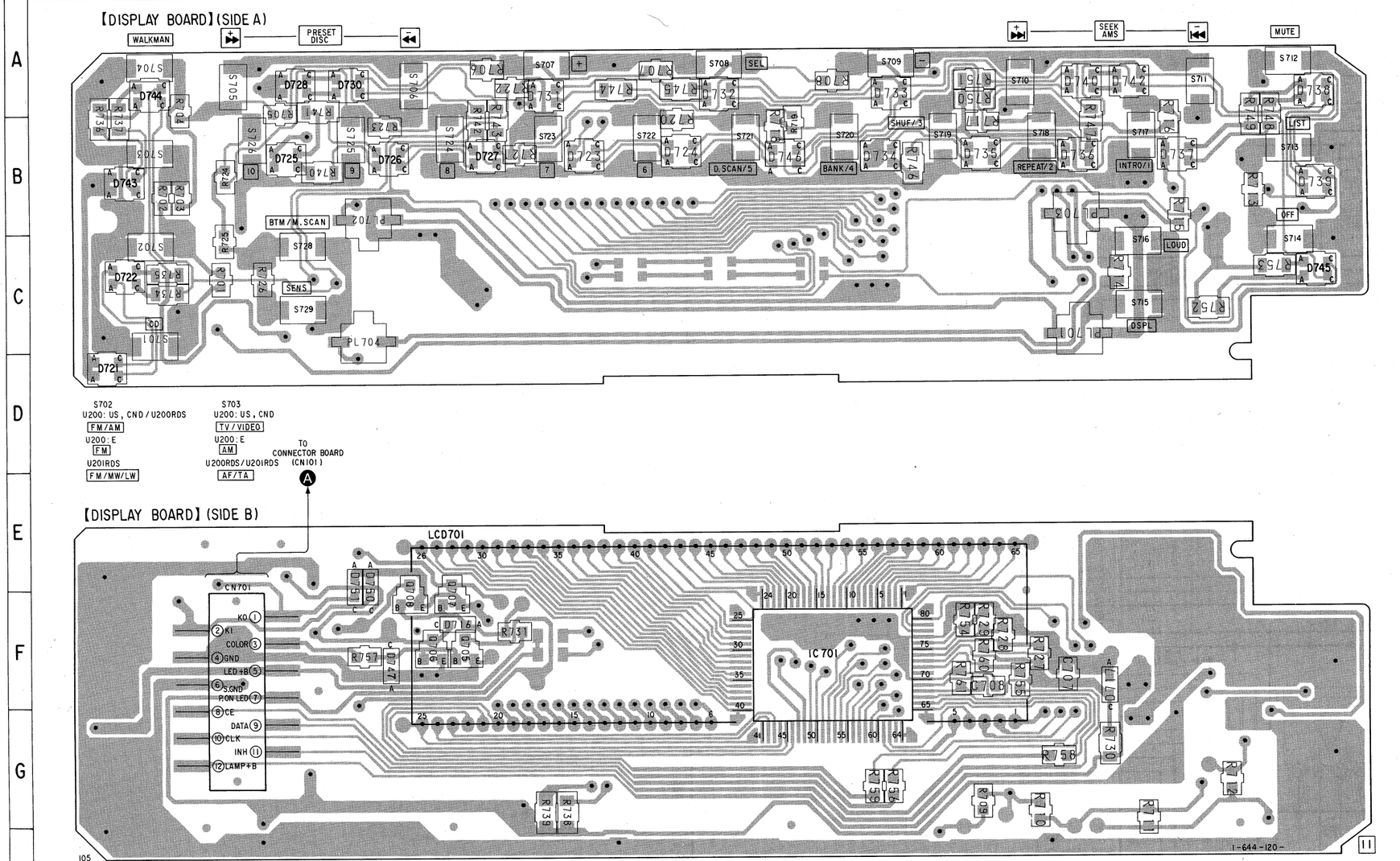
12
13
14
15
16
17
18
19
20
21
22
23
24
LINE OUT
FRONT
REAR
CNJ501
GNÐ
R.R
F.R
R.L
F.L
Q101, 102, 201, 202
MUTING
IC101 (1/2)
BA4558
IC101 (2/2)
BA4558
IC201 (2/2)
BA4558
Q101 ÐTC314TK
Q102 ÐTC314TK
Q201 ÐTC314TK
Q202 ÐTC314TK
D101 MTZ4.3
D201 MTZ4.3
U200:E
SW502
TUNING INTERVAL
SELECT
9K→10K
* R574
U200 US, CNÐ:33K
U200RÐS:0
IC514
REG
IC1514
TA78L05
Q528
2SA1037
B+ SWITCH
Q532
ÐTC124EK
SWITCH
Q533
ÐTC124EK
SWITCH
Q506
2SC2412
SWITCH
Q504
2SÐ2179
REG
Q503
2SÐ2006
REG
Q501
ÐTA124EK
B+ SWITCH
Q502
ÐTC124EK
SWITCH
D502 MTZ12B
D501 ÐTZ11
<ILL.ON>
<P.ON.5V>
<B/U.5V>
<P/U.5V>
POWER
SELECT
OFF→ON
SW501
IC504
SYSTEM
CONTROL
KEY IN0
VREF
VÐÐ
VÐÐ
KEY ACTIV
POWER-ON
ILL-ON
COLOR
MUTE
AUX-MUTE
N.C
N.C
ANT.REM
N.C
N.C
LCÐ.INH
GNÐ
LCÐ.ÐATA
LCÐ.CLK
LCÐ.CE
VOL.CE
PLL.CE
CLK
ÐATA IN
RECEIVE
RÐS.ERR
RÐS.Ð.S
RÐS.ÐATA IN
RESET
X2
X1
IC
XT2
XT1
GNÐ
BU.C
CLK.IN
ÐATA.OUT
ÐATA.IN
SIRCS
RÐS.CLK
KEY.ACK
ACC.C
BEEP
CLK.OUT
BUS.ON
SYS.RST
SYNC
X502 32KHz
X503 6MHz
0.18μSEC
3.5Vp-p
30μSEC
4.4Vp-p
IC504
μPÐ75518GF-040- 3B9
IC513
REG
IC513
AN8009M
Q523
2SÐ2179
REG
Q521
2SÐ1446
TUNER B+
SWITCH
Q520
2SÐ1664
REG
Q522
ÐTC124EK
SWITCH
Q511
2SA1037
BUS ON
SWITCH
Q512
2SA1037
RESET
<BUSON.5V>
Q509
2SC2412
Q508
2SC2412
IC501
BUFFER
IC501
NJM2903M
Q515
2SC2412
BUFFER
Q531
2SC2412
SWITCH
Q530
2SC2412
SWITCH
Q529
2SC2412
ACC CHECK
Q526
ÐTC144EK
ACC CHECK
Q525
2SC2412
BACK UP
CHECK
D517 MTZ6.2
D516 MTZ18
D511 1SS133
ÐATA
CLK
RÐS:X24C16SI
D519 BAN202K
IC515
SWITCH
IC607
LC7071NM
IC607
RÐS ERROR
CORRECTION
3.2Vp-p
CLK
ÐATA
ÐS
RECV
RST
ERR
[POWER BOARD]
CN801
AMP-REM
ANT-REM
ACC
GNÐ
+B
+B
AMP-ON
FR
RR
AUÐIO-GNÐ
RL
FL
IC801
POWER AMP
IC801
TA8215H
IC901
POWER AMP
IC901
TA8215H
TH901
TH902
<+B>
<FL->
<FL+>
<RL->
<RL+>



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▬▬ : B+ Line
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from battery terminal.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM ⇨ : PB
- CND: Canadian model
- G : Germany model

3-6. PRINTED WIRING BOARD—FRONT PANEL SECTION— • Refer to page 27 for Semiconductor Layouts.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D716	F-4	D734	B-8
D717	F-10	D735	B-9
D721	D-1	D736	B-9
D722	C-1	D737	B-10
D723	B-5	D738	A-11
D724	B-6	D739	B-11
D725	B-3	D740	A-10
D726	B-4	D742	A-10
D727	B-4	D743	B-1
D728	A-3	D744	A-2
D730	A-3	D745	C-11
D731	A-5	D746	B-7
D732	A-6	D747	F-4
D733	A-8		

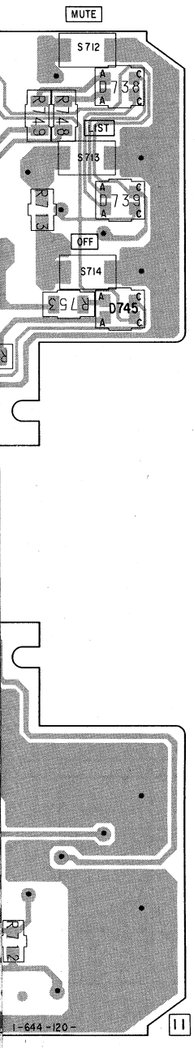
Note:

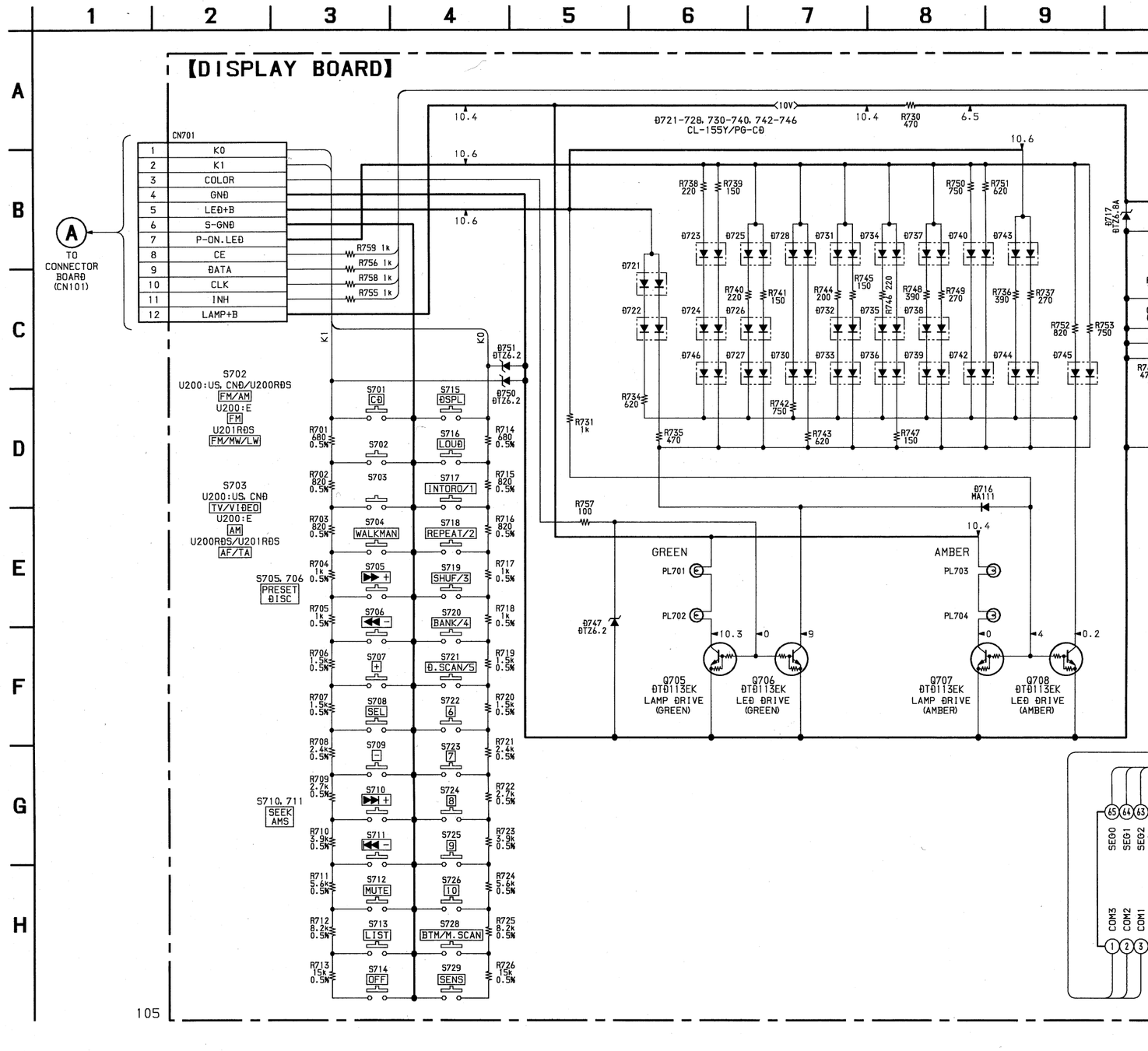
- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
  (The other layers' patterns are not indicated.)

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- ▬▬ : B+ Line
- Power voltage is dc 14.4V and fed wi supply from battery terminal.
- Voltage and waveforms are dc with re no-signal (detuned) conditions. no mark : FM
- Voltages are taken with a VOM (Inpu Voltage variations may be noted d tion tolerances.

3-7. SCHEMATIC DIAGRAM—FRONT PANEL SECTION—



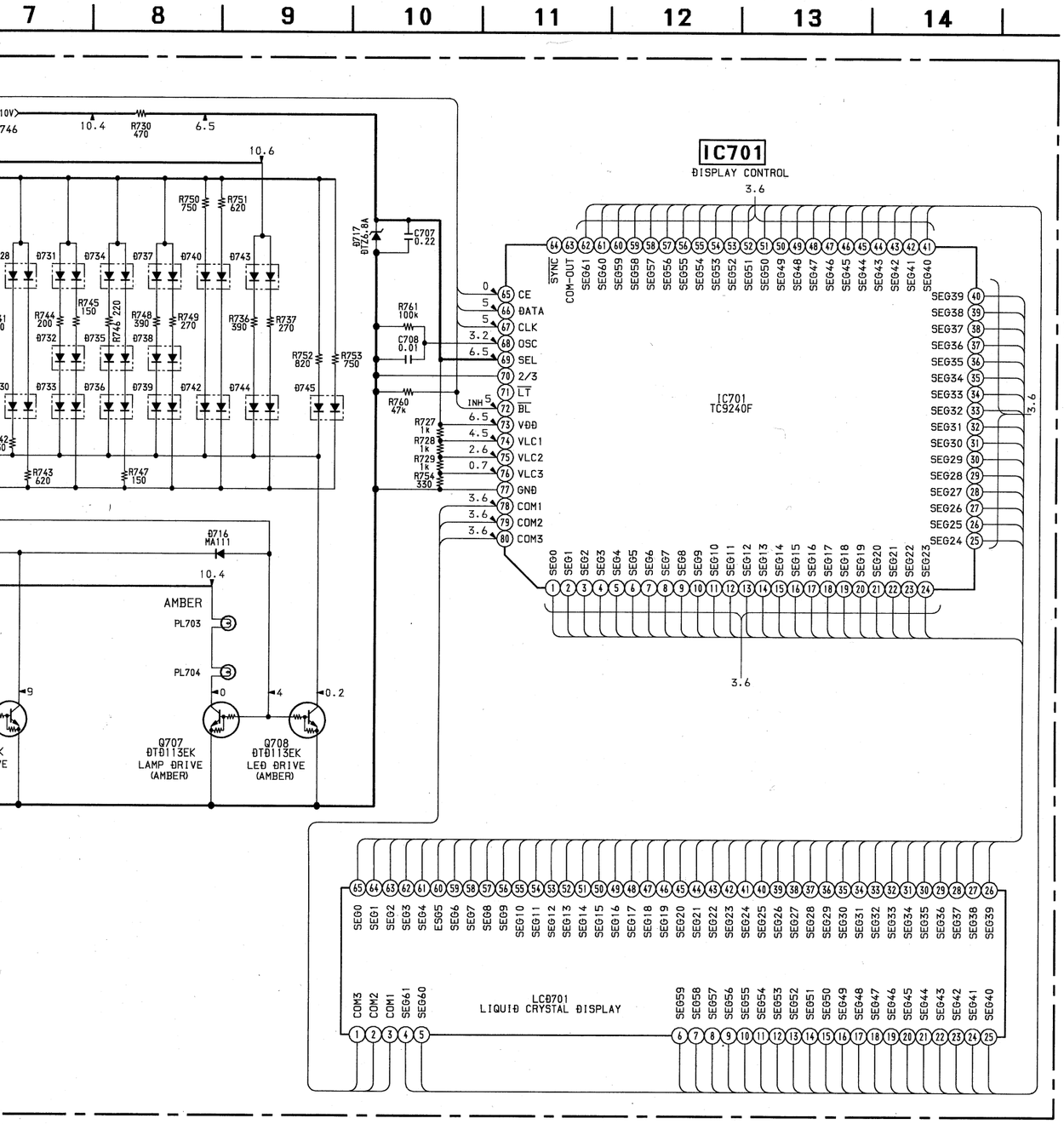


ed. pF: μμF
electrolytics

ss otherwise

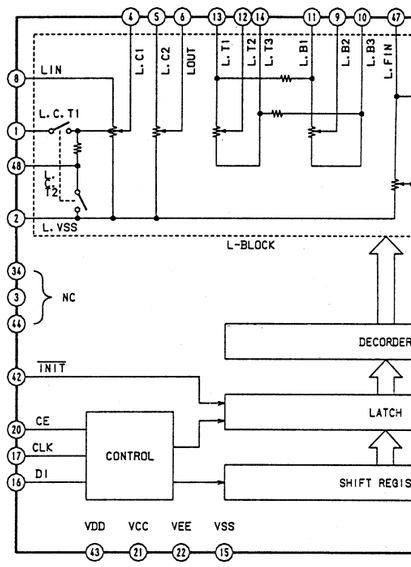
- ▬▬ : B+ Line
- Power voltage is dc 14.4V and fed with regulated dc power supply from battery terminal.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

7 | 8 | 9 | 10 | 11 | 12 | 13 | 14

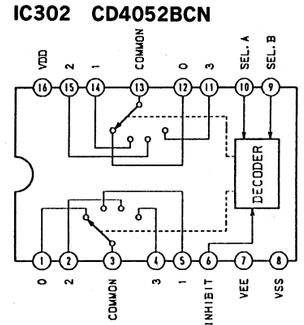


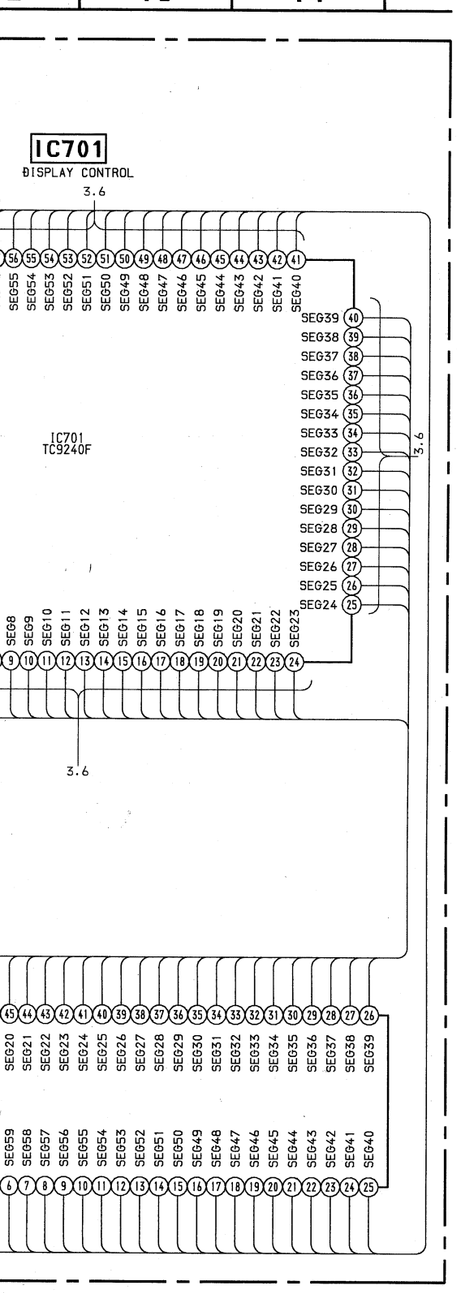
• IC Block Diagrams

IC301 LC7537AN



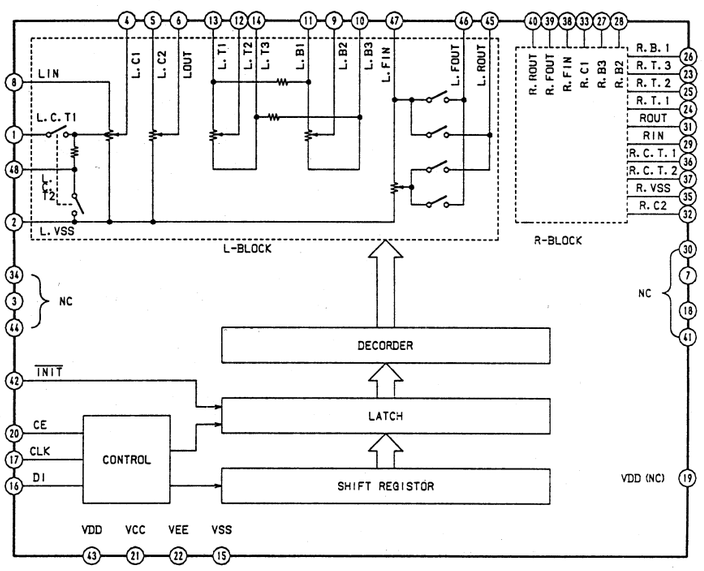
IC302 CD4052BCN





• **IC Block Diagrams**

IC301 LC7537AN



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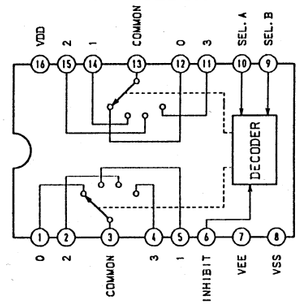
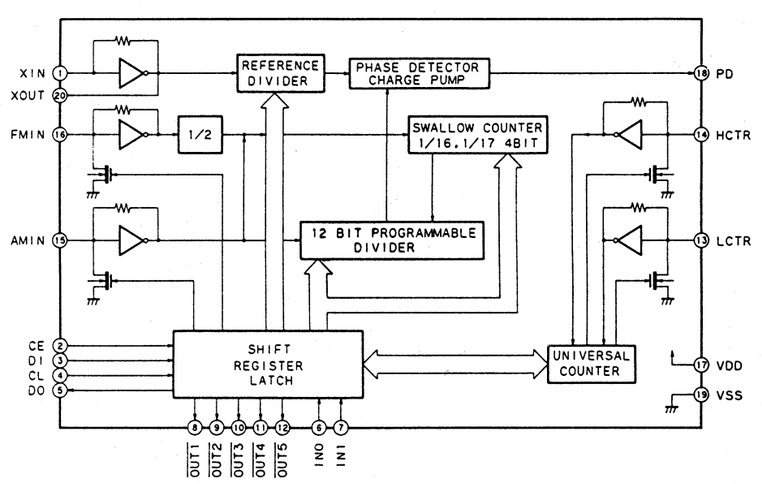
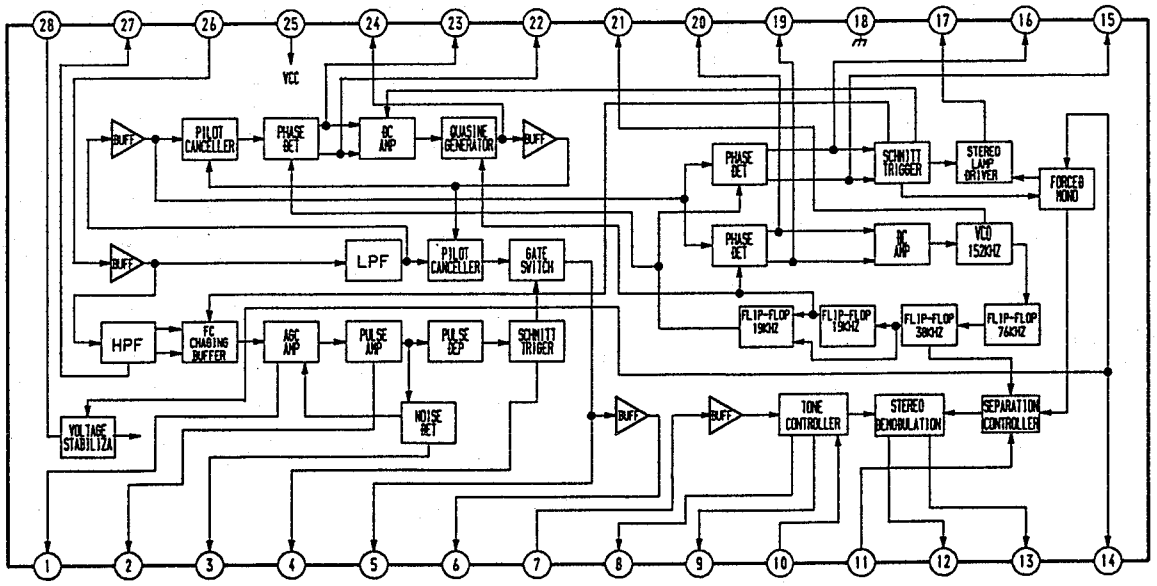


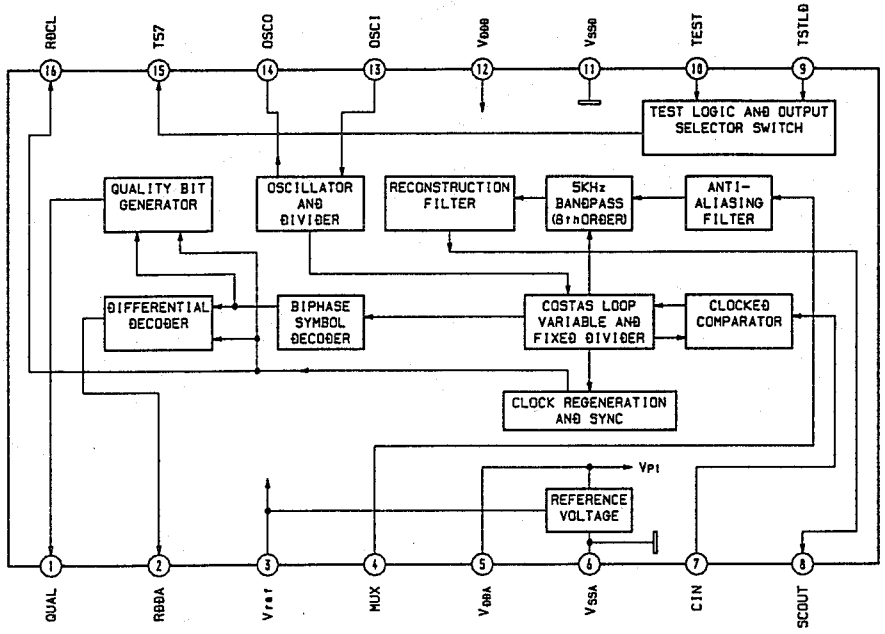
IC603 LC7216M



IC605 AN7463S



IC606 SAA6579T



SECTION 4
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE)...(RED)
  ↑ Parts Color ↑ Cabinet's Color

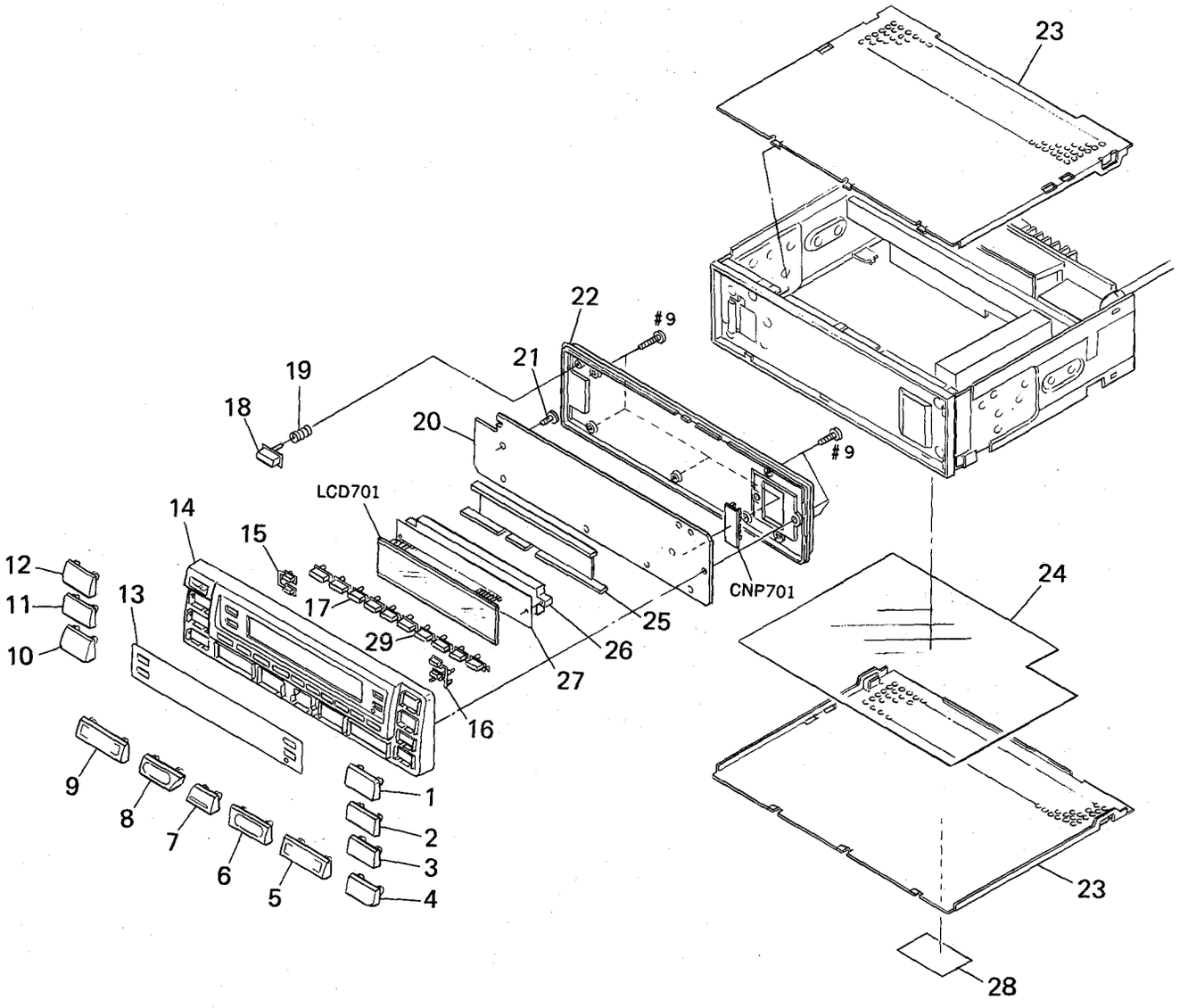
CND: Canadian model
G : Germany model

- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

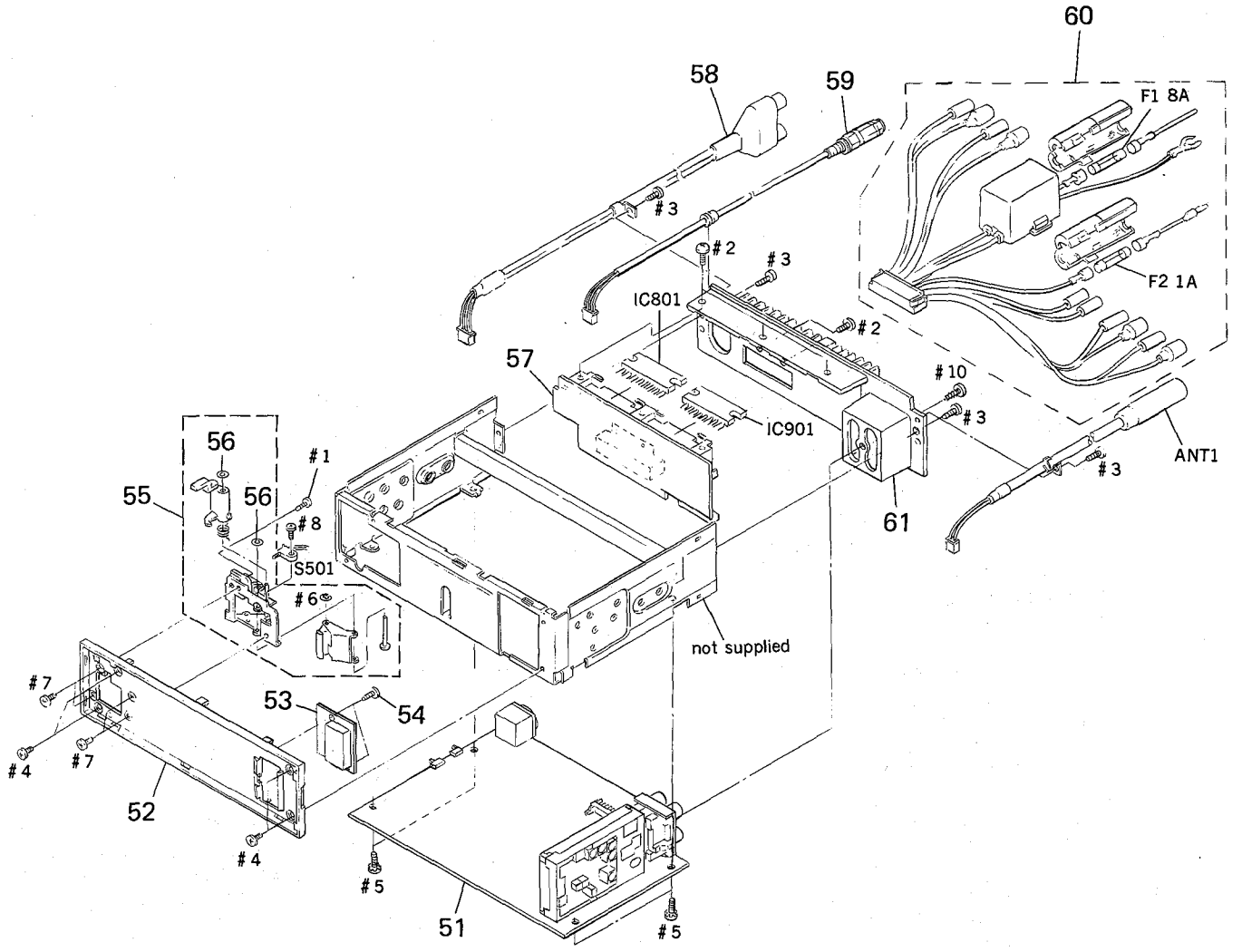
4-1. FRONT PANEL/CASE



Ref. No.	Part No.	Description	Remark
1	3-378-906-01	BUTTON (CD)	
2	3-378-907-01	BUTTON (R2) (U200:US, CND/U200RDS)	
2	3-378-907-11	BUTTON (R2) (U200:E)	
2	3-378-907-21	BUTTON (R2) (U201RDS)	
3	3-378-908-01	BUTTON (R3) (U200:US, CND)	
3	3-378-908-11	BUTTON (R3) (U200:E)	
3	3-378-908-31	BUTTON (R3) (U200RDS/U201RDS)	
4	3-378-909-01	BUTTON (WM)	
5	3-378-910-01	BUTTON (PRESET)	
6	3-378-911-01	BUTTON (+)	
7	3-378-912-01	BUTTON (SEL)	
8	3-378-913-01	BUTTON (-)	
9	3-378-914-01	BUTTON (SEEK)	
10	3-378-915-01	BUTTON (MUTE)	
11	3-378-916-01	BUTTON (LIST)	
12	3-378-917-01	BUTTON (OFF)	
13	3-378-928-01	WINDOW (LCD)	
14	3-378-923-01	PANEL, FRONT (U200:US, CND)	
14	3-378-923-11	PANEL, FRONT (U200:E)	
14	3-378-923-21	PANEL, FRONT (U200RDS)	
14	3-378-923-31	PANEL, FRONT (U201RDS)	
15	3-378-927-01	BUTTON (DSPL)	

Ref. No.	Part No.	Description	Remark
16	3-378-919-01	BUTTON (SENS)	
17	3-378-918-01	BUTTON (10 KEY)	
18	3-378-920-01	BUTTON (RELEASE)	
19	3-575-488-00	SPRING, COMPRESSION	
* 20	A-3222-434-A	DISPLAY BOARD, COMPLETE	
21	4-947-204-01	SCREW (M2X4)	
22	3-378-921-01	PANEL, FRONT BACK	
* 23	3-378-926-01	COVER	
* 24	3-378-931-01	SHEET, INSULATING	
* 25	3-378-924-01	HOLDER (LCD)	
* 26	3-378-925-01	PLATE (LCD), LIGHT GUIDE	
* 27	3-378-929-01	SHEET (REFLECTOR)	
* 28	3-378-930-01	LABEL, MODEL NUMBER (U) (U200:US)	
* 28	3-378-933-01	LABEL, MODEL NUMBER (CA) (U200:CND)	
* 28	3-378-934-01	LABEL, MODEL NUMBER (E) (U200:E)	
* 28	3-378-935-01	LABEL, MODEL NUMBER (AE) (U200RDS:AEP)	
* 28	3-378-936-01	LABEL, MODEL NUMBER (AE6) (U200RDS:G)	
* 28	3-378-937-01	LABEL, MODEL NUMBER (AEL) (U201RDS)	
29	3-378-918-11	BUTTON (10 KEY)	
* CNP701	1-691-557-11	PIN, CONNECTOR 12P	
LCD701	1-809-754-11	DISPLAY PANEL, LIQUID CRYSTAL	

4-2. MAIN CHASSIS



Ref. No.	Part No.	Description	Remark
* 51	A-3222-431-A	MAIN BOARD, COMPLETE (U200:US, CND)	
* 51	A-3222-432-A	MAIN BOARD, COMPLETE (U200:E)	
* 51	A-3222-436-A	MAIN BOARD, COMPLETE (U200RDS:AEP)	
* 51	A-3222-437-A	MAIN BOARD, COMPLETE (U200RDS:G)	
* 51	A-3222-438-A	MAIN BOARD, COMPLETE (U201RDS)	
52	3-378-922-01	PANEL (SUB)	
* 53	1-644-121-11	CONNECTOR BOARD	
54	4-947-204-01	SCREW (M2X4)	
55	X-3363-885-1	HOLDER (LEVER) ASSY	
56	3-701-436-11	WASHER, STOPPER	
* 57	A-3222-430-A	POWER BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
58	1-696-001-11	CORD (WITH CONNECTOR) (AUX)	
59	1-690-485-11	CORD (WITH CONNECTOR) (WM)	
60	1-696-022-11	CORD (WITH CONNECTOR) (POWER)	
* 61	3-378-905-01	HEAT SINK	
ANT1	1-574-339-31	CORD (WITH CONNECTOR) (ANT)	
F1	1-532-508-00	FUSE, GLASS TUBE 8A	
F2	1-532-360-XX	FUSE, GLASS TUBE 1A	
IC801	8-759-243-27	IC TA8215H	
IC901	8-759-243-27	IC TA8215H	
S501	1-570-771-11	SWITCH (RELEASE)	

SECTION 5
ELECTRICAL PARTS LIST

CONNECTOR **DISPLAY**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

CND : Canadian model
G : Germany model

Ref. No.	Part No.	Description	Remark
*	1-644-121-11	CONNECTOR BOARD	
		**********	
		< CONNECTOR >	
* CNJ101	1-691-558-11	SOCKET, CONNECTOR 12P	
		< SWITCH >	
S101	1-692-037-11	SWITCH, KEY BOARD (RESET)	
**********			
*	A-3222-434-A	DISPLAY BOARD, COMPLETE	
		**********	
*	3-378-924-01	HOLDER (LCD)	
*	3-378-925-01	PLATE (LCD), LIGHT GUIDE	
*	3-378-929-01	SHEET (REFLECTOR)	
		< CAPACITOR >	
C707	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C708	1-164-232-11	CERAMIC CHIP 0.01uF	50V
		< CONNECTOR >	
* CNP701	1-691-557-11	PIN, CONNECTOR 12P	
		< DIODE >	
D716	8-719-404-49	DIODE MA111	
D717	8-719-977-11	DIODE DTZ6.8A	
D721	8-719-987-45	DIODE CL-155Y/PG-CD	
D722	8-719-987-45	DIODE CL-155Y/PG-CD	
D723	8-719-987-45	DIODE CL-155Y/PG-CD	
D724	8-719-987-45	DIODE CL-155Y/PG-CD	
D725	8-719-987-45	DIODE CL-155Y/PG-CD	
D726	8-719-987-45	DIODE CL-155Y/PG-CD	
D727	8-719-987-45	DIODE CL-155Y/PG-CD	
D728	8-719-987-45	DIODE CL-155Y/PG-CD	
D730	8-719-987-45	DIODE CL-155Y/PG-CD	
D731	8-719-987-45	DIODE CL-155Y/PG-CD	
D732	8-719-987-45	DIODE CL-155Y/PG-CD	
D733	8-719-987-45	DIODE CL-155Y/PG-CD	
D734	8-719-987-45	DIODE CL-155Y/PG-CD	
D735	8-719-987-45	DIODE CL-155Y/PG-CD	
D736	8-719-987-45	DIODE CL-155Y/PG-CD	
D737	8-719-987-45	DIODE CL-155Y/PG-CD	
D738	8-719-987-45	DIODE CL-155Y/PG-CD	
D739	8-719-987-45	DIODE CL-155Y/PG-CD	
D740	8-719-987-45	DIODE CL-155Y/PG-CD	
D742	8-719-987-45	DIODE CL-155Y/PG-CD	
D743	8-719-987-45	DIODE CL-155Y/PG-CD	
D744	8-719-987-45	DIODE CL-155Y/PG-CD	
D745	8-719-987-45	DIODE CL-155Y/PG-CD	
D746	8-719-987-45	DIODE CL-155Y/PG-CD	
D747	8-719-977-05	DIODE DTZ6.2	
D750	8-719-977-05	DIODE DTZ6.2	
D751	8-719-977-05	DIODE DTZ6.2	
		< IC >	
IC701	8-759-246-16	IC TC9240F	
		< LIQUID CRYSTAL DISPLAY >	
LCD701	1-809-754-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< PILOT LAMP >	
PL701	1-518-701-21	LAMP, PILOT (GREEN)	
PL702	1-518-701-21	LAMP, PILOT (GREEN)	
PL703	1-518-677-21	LAMP, PILOT (AMBER)	
PL704	1-518-677-21	LAMP, PILOT (AMBER)	

DISPLAY

Ref. No.	Part No.	Description				Remark
		< TRANSISTOR >				
Q705	8-729-904-66	TRANSISTOR	DTD113EK			
Q706	8-729-904-66	TRANSISTOR	DTD113EK			
Q707	8-729-904-66	TRANSISTOR	DTD113EK			
Q708	8-729-904-66	TRANSISTOR	DTD113EK			
		< RESISTOR >				
R701	1-216-647-11	METAL CHIP	680	0.5%	1/10W	
R702	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R703	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R704	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R705	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R706	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R707	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R708	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W	
R709	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W	
R710	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R711	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W	
R712	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W	
R713	1-216-679-11	METAL CHIP	15K	0.5%	1/10W	
R714	1-216-647-11	METAL CHIP	680	0.5%	1/10W	
R715	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R716	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R717	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R718	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R719	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R720	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R721	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W	
R722	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W	
R723	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R724	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W	
R725	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W	
R726	1-216-679-11	METAL CHIP	15K	0.5%	1/10W	
R727	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R728	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R729	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R730	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R731	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R734	1-216-193-00	METAL GLAZE	620	5%	1/8W	
R735	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R736	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R737	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R738	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R739	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R740	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R741	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R742	1-216-195-00	METAL GLAZE	750	5%	1/8W	
R743	1-216-193-00	METAL GLAZE	620	5%	1/8W	

Ref. No.	Part No.	Description				Remark
R744	1-216-181-00	METAL GLAZE	200	5%	1/8W	
R745	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R746	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R747	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R748	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R749	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R750	1-216-195-00	METAL GLAZE	750	5%	1/8W	
R751	1-216-193-00	METAL GLAZE	620	5%	1/8W	
R752	1-216-196-00	METAL GLAZE	820	5%	1/8W	
R753	1-216-195-00	METAL GLAZE	750	5%	1/8W	
R754	1-216-037-00	METAL CHIP	330	5%	1/10W	
R755	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R756	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R757	1-216-025-00	METAL CHIP	100	5%	1/10W	
R758	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R759	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R760	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R761	1-216-097-00	METAL CHIP	100K	5%	1/10W	

< SWITCH >

S701	1-692-037-11	SWITCH, KEY BOARD (CD)
S702	1-692-037-11	SWITCH, KEY BOARD (FM/AM) (U200:US, CND/U200RDS)
S702	1-692-037-11	SWITCH, KEY BOARD (FM) (U200:E)
S702	1-692-037-11	SWITCH, KEY BOARD (FM/MW/LW) (U201RDS)
S703	1-692-037-11	SWITCH, KEY BOARD (TV/VIDEO) (U200:US, CND)
S703	1-692-037-11	SWITCH, KEY BOARD (AM) (U200:E)
S703	1-692-037-11	SWITCH, KEY BOARD (AF/TA) (U200RDS/U201RDS)
S704	1-692-037-11	SWITCH, KEY BOARD (WALKMAN)
S705	1-692-037-11	SWITCH, KEY BOARD (▶▶ +)
S706	1-692-037-11	SWITCH, KEY BOARD (◀◀ -)
S707	1-692-037-11	SWITCH, KEY BOARD (+)
S708	1-692-037-11	SWITCH, KEY BOARD (SEL)
S709	1-692-037-11	SWITCH, KEY BOARD (-)
S710	1-692-037-11	SWITCH, KEY BOARD (▶▶| +)
S711	1-692-037-11	SWITCH, KEY BOARD (|◀◀ -)
S712	1-692-037-11	SWITCH, KEY BOARD (MUTE)
S713	1-692-037-11	SWITCH, KEY BOARD (LIST)
S714	1-692-037-11	SWITCH, KEY BOARD (OFF)
S715	1-692-037-11	SWITCH, KEY BOARD (DSPL)
S716	1-692-037-11	SWITCH, KEY BOARD (LOUD)
S717	1-692-037-11	SWITCH, KEY BOARD (INTRO/1)
S718	1-692-037-11	SWITCH, KEY BOARD (REPEAT/2)
S719	1-692-037-11	SWITCH, KEY BOARD (SHUF/3)
S720	1-692-037-11	SWITCH, KEY BOARD (BANK/4)
S721	1-692-037-11	SWITCH, KEY BOARD (D.SCAN/5)
S722	1-692-037-11	SWITCH, KEY BOARD (6)
S723	1-692-037-11	SWITCH, KEY BOARD (7)

Ref. No.	Part No.	Description	Remark
S724	1-692-037-11	SWITCH, KEY BOARD (8)	
S725	1-692-037-11	SWITCH, KEY BOARD (9)	
S726	1-692-037-11	SWITCH, KEY BOARD (10)	
S728	1-692-037-11	SWITCH, KEY BOARD (BTM/M. SCAN)	
S729	1-692-037-11	SWITCH, KEY BOARD (SENS)	
**********			
*	A-3222-431-A	MAIN BOARD, COMPLETE (U200:US, CND)	
		**********	
*	A-3222-432-A	MAIN BOARD, COMPLETE (U200:E)	
		**********	
*	A-3222-436-A	MAIN BOARD, COMPLETE (U200RDS:AEP)	
		**********	
*	A-3222-437-A	MAIN BOARD, COMPLETE (U200RDS:G)	
		**********	
*	A-3222-438-A	MAIN BOARD, COMPLETE (U201RDS)	
		**********	
		< CAPACITOR >	
C101	1-126-157-11	ELECT 10uF 20% 16V	
C102	1-126-157-11	ELECT 10uF 20% 16V	
C103	1-126-301-11	ELECT 1uF 20% 50V	
C104	1-126-301-11	ELECT 1uF 20% 50V	
C106	1-130-492-11	MYLAR 0.056uF 5% 50V	
C107	1-130-492-11	MYLAR 0.056uF 5% 50V	
C108	1-106-353-00	MYLAR 0.0027uF 5% 50V	
C109	1-126-154-11	ELECT 47uF 20% 6.3V	
C110	1-124-464-11	ELECT 0.22uF 20% 50V	
C111	1-130-477-00	MYLAR 0.0033uF 5% 50V	
C112	1-126-157-11	ELECT 10uF 20% 16V	
C113	1-126-177-11	ELECT 100uF 20% 10V	
C114	1-124-257-00	ELECT 2.2uF 20% 50V	
C120	1-124-499-11	ELECT (NONPOLAR) 1uF 20% 50V	
C121	1-126-163-11	ELECT 4.7uF 20% 50V	
C122	1-126-163-11	ELECT 4.7uF 20% 50V	
C123	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C124	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C201	1-126-157-11	ELECT 10uF 20% 16V	
C202	1-126-157-11	ELECT 10uF 20% 16V	
C203	1-126-301-11	ELECT 1uF 20% 50V	
C204	1-126-301-11	ELECT 1uF 20% 50V	
C206	1-130-492-11	MYLAR 0.056uF 5% 50V	
C207	1-130-492-11	MYLAR 0.056uF 5% 50V	
C208	1-106-353-00	MYLAR 0.0027uF 5% 50V	
C209	1-126-154-11	ELECT 47uF 20% 6.3V	
C210	1-124-464-11	ELECT 0.22uF 20% 50V	
C211	1-130-477-00	MYLAR 0.0033uF 5% 50V	
C212	1-126-157-11	ELECT 10uF 20% 16V	
C213	1-124-443-11	ELECT 100uF 20% 6.3V	
C214	1-124-257-00	ELECT 2.2uF 20% 50V	
C220	1-124-499-11	ELECT (NONPOLAR) 1uF 20% 50V	
C221	1-126-163-11	ELECT 4.7uF 20% 50V	
C222	1-126-163-11	ELECT 4.7uF 20% 50V	

Ref. No.	Part No.	Description	Remark
C223	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C224	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C301	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C305	1-126-157-11	ELECT 10uF 20% 16V	
C306	1-124-234-00	ELECT 22uF 20% 16V	
C307	1-126-301-11	ELECT 1uF 20% 50V	
C501	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C503	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V	
C505	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C506	1-163-229-11	CERAMIC CHIP 12PF 5% 50V	
C507	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C508	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C509	1-125-701-11	CAP, DOUBLE LAYEYER 0.047F	
C510	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C511	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C512	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C513	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C514	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C515	1-126-157-11	ELECT 10uF 20% 16V	
C516	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C517	1-124-229-00	ELECT 33uF 20% 10V	
C519	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C520	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C521	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C522	1-126-177-11	ELECT 100uF 20% 10V	
C523	1-124-464-11	ELECT 0.22uH 20% 50V	
C524	1-163-229-11	CERAMIC CHIP 12PF 5% 50V	
C525	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C526	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C531	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C532	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C533	1-124-584-11	ELECT 100uF 20% 10V	
C534	1-124-584-11	ELECT 100uF 20% 10V	
C535	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C536	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C537	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C538	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C602	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C603	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C604	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C605	1-106-359-00	MYLAR 4700PF 5% 200V	
C606	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C607	1-126-925-11	ELECT 470uF 20% 10V	
C608	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C609	1-126-925-11	ELECT 470uF 20% 10V	
C610	1-130-486-00	MYLAR 0.018uF 5% 50V	(EXCEPT U200:US, CND)
C610	1-130-487-00	MYLAR 0.022uF 5% 50V	(U200:US, CND)

MAIN

Ref. No.	Part No.	Description			Remark
C611	1-130-486-00	MYLAR	0.018uF	5% 50V	(EXCEPT U200:US, CND)
C611	1-130-487-00	MYLAR	0.022uF	5% 50V	(U200:US, CND)
C612	1-124-464-11	ELECT	0.22uF	20% 50V	
C614	1-136-169-00	FILM	0.22uF	5% 50V	
C616	1-130-492-11	MYLAR	0.056uF	5% 50V	
C618	1-126-163-11	ELECT	4.7uF	20% 50V	
C619	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C620	1-164-182-11	CERAMIC CHIP	0.0033uF	10% 50V	
C621	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C623	1-162-969-11	CERAMIC CHIP	0.0068uF	10% 25V	
C624	1-164-361-11	CERAMIC CHIP	0.047uF	16V	
C625	1-164-361-11	CERAMIC CHIP	0.047uF	16V	
C626	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V	
C628	1-124-463-00	ELECT	0.1uF	20% 50V	
C642	1-126-163-11	ELECT	4.7uF	20% 50V	
C643	1-124-464-11	ELECT	0.22uF	20% 50V	
C644	1-163-263-11	CERAMIC CHIP	330PF	5% 50V	(U200RDS/U201RDS)
C645	1-164-363-11	CERAMIC CHIP	560PF	5% 50V	(U200RDS/U201RDS)
C649	1-163-243-11	CERAMIC CHIP	47PF	5% 50V	(U200RDS/U201RDS)
C650	1-163-115-00	CERAMIC CHIP	82PF	5% 50V	(U200RDS/U201RDS)
C651	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	(U200RDS/U201RDS)
C652	1-163-195-00	CERAMIC CHIP	390PF	5% 50V	
C653	1-124-463-00	ELECT	0.1uF	20% 50V	
C654	1-163-019-00	CERAMIC CHIP	0.0068uF	10% 50V	
C655	1-124-589-11	ELECT	47uF	20% 16V	
C656	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	(U200RDS/U201RDS)
C661	1-124-257-00	ELECT	2.2uF	20% 50V	(U200RDS/U201RDS)
C662	1-164-156-11	CERAMIC CHIP	0.1uF	25V	(U200RDS/U201RDS)
C663	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V	
C664	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	
C665	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C666	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C690	1-163-077-00	CERAMIC CHIP (U200RDS:G)	0.1uF	10% 25V	
C691	1-164-004-11	CERAMIC CHIP (U200RDS:G)	0.1uF	10% 25V	

< CONNECTOR >

CNJ501	1-565-258-11	JACK, PIN 4P (LINE OUT FRONT/REAR)	
* CNP501	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
* CNP502	1-506-988-11	PIN, CONNECTOR (PC BOARD) 6P	
CNP503	1-580-907-11	PLUG, CONNECTOR	
* CNP504	1-580-369-11	PIN, CONNECTOR (PC BOARD) 12P	
* CNP505	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
* CNP507	1-506-989-51	PIN, CONNECTOR (PC BOARD) 7P	
* CNP601	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	

< DIODE >

D101	8-719-982-11	DIODE	MTZJ4.3B
D103	8-719-982-11	DIODE	MTZJ4.3B
D201	8-719-982-11	DIODE	MTZJ4.3B
D203	8-719-982-11	DIODE	MTZJ4.3B
D301	8-719-921-98	DIODE	MTZJ18
D501	8-719-977-30	DIODE	DTZ11
D502	8-719-921-82	DIODE	MTZJ12
D503	8-719-921-49	DIODE	MTZJ6.2
D504	8-719-921-49	DIODE	MTZJ6.2
D506	8-719-921-71	DIODE	MTZJ9.1B
D507	8-719-800-76	DIODE	1SS226
D508	8-719-800-76	DIODE	1SS226
D509	8-719-104-34	DIODE	1S2836
D510	8-719-921-54	DIODE	MTZJ6.2B
D511	8-719-800-76	DIODE	1SS226
D512	8-719-977-03	DIODE	DTZ5.6B
D513	8-719-921-71	DIODE	MTZJ9.1B
D515	8-719-921-49	DIODE	MTZJ6.2
D516	8-719-921-98	DIODE	MTZJ18
D517	8-719-921-49	DIODE	MTZJ6.2
D519	8-719-400-18	DIODE	MA152WK
D521	8-719-104-34	DIODE	1S2836
D532	8-719-921-49	DIODE	MTZJ6.2
D533	8-719-921-49	DIODE	MTZJ6.2
D534	8-719-921-49	DIODE	MTZJ6.2
D535	8-719-921-49	DIODE	MTZJ6.2
D536	8-719-921-49	DIODE	MTZJ6.2
D537	8-719-921-49	DIODE	MTZJ6.2
D538	8-719-921-49	DIODE	MTZJ6.2
D539	8-719-404-49	DIODE	MA111
D578	8-719-977-11	DIODE	DTZ6.8A
D609	8-719-800-76	DIODE	1SS226
D610	8-719-800-76	DIODE	1SS226
D611	8-719-104-34	DIODE	1S2836
D612	8-719-977-03	DIODE	DTZ5.6B (U200RDS/U201RDS)

< FRONTEND >

FE601	1-465-405-11	TUNER UNIT (FM/AM) (U200)
FE601	1-693-045-11	TUNER UNIT (FM/AM) (U200RDS)
FE601	1-693-046-11	TUNER UNIT (FM/WM/LW) (U201RDS)

< IC >

IC101	8-759-909-71	IC	BA4558F
IC102	8-759-909-71	IC	BA4558F

Ref. No.	Part No.	Description	Remark
IC103	8-759-909-71	IC BA4558F	
IC201	8-759-909-71	IC BA4558F	
IC202	8-759-909-71	IC BA4558F	
IC203	8-759-909-71	IC BA4558F	
IC301	8-759-820-15	IC LC7537AN	
IC302	8-759-516-41	IC CD4052BCM	
IC303	8-759-909-71	IC BA4558F	
IC304	8-759-048-67	IC BA3121F	
IC305	8-759-909-71	IC BA4558F	
IC501	8-759-700-07	IC NJM2903M	
IC502	8-759-940-45	IC S-8054HN-CB-S	
IC504	8-759-075-76	IC uPD75518GF-040-3B9	
IC513	8-759-421-13	IC AN8009N	
IC514	8-759-234-08	IC TA78L05F	
IC515	8-759-932-86	IC BU4081BF	
IC602	8-759-513-42	IC X24C04SI (U200)	
IC602	8-759-513-44	IC X24C16SI (U200RDS/U201RDS)	
IC603	8-759-823-81	IC LC7216M	
IC605	8-759-421-10	IC AN7463S	
IC606	8-759-065-98	IC SAA6579T (U200RDS/U201RDS)	
IC607	8-759-823-84	IC LC7071NM (U200RDS/U201RDS)	
		< JUMPER RESISTOR >	
JR5	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR501	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR504	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR505	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR507	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< COIL >	
L501	1-410-973-11	INDUCTOR 22uH	
L601	1-410-973-11	INDUCTOR 22uH	
L602	1-410-973-11	INDUCTOR 22uH	
L605	1-410-973-11	INDUCTOR 22uH	
L606	1-410-973-11	INDUCTOR 22uH	
		< TRANSISTOR >	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q301	8-729-901-05	TRANSISTOR DTA124EK	
Q302	8-729-901-00	TRANSISTOR DTC124EK	
Q501	8-729-901-05	TRANSISTOR DTA124EK	
Q502	8-729-901-00	TRANSISTOR DTC124EK	
Q503	8-729-016-69	TRANSISTOR 2SD2006	
Q504	8-729-016-84	TRANSISTOR 2SD2179	
Q505	8-729-106-60	TRANSISTOR 2SB1115A	
Q506	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

Ref. No.	Part No.	Description	Remark
Q507	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q508	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q509	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-216-22	TRANSISTOR 2SA1162	
Q512	8-729-216-22	TRANSISTOR 2SA1162	
Q515	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q516	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q517	8-729-016-83	TRANSISTOR 2SB1466	
Q518	8-729-901-00	TRANSISTOR DTC124EK	
Q520	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q521	8-729-016-83	TRANSISTOR 2SB1446	
Q522	8-729-901-00	TRANSISTOR DTC124EK	
Q523	8-729-016-84	TRANSISTOR 2SD2179	
Q524	8-729-901-01	TRANSISTOR DTC144EK	
Q525	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q526	8-729-901-01	TRANSISTOR DTC144EK	
Q528	8-729-216-22	TRANSISTOR 2SA1162	
Q529	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q530	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q531	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q532	8-729-901-00	TRANSISTOR DTC124EK	
Q533	8-729-901-00	TRANSISTOR DTC124EK	
Q535	8-729-901-00	TRANSISTOR DTC124EK	
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (U200RDS/U201RDS)	
Q602	8-729-106-60	TRANSISTOR 2SB1115A	
Q603	8-729-106-60	TRANSISTOR 2SB1115A	
Q606	8-729-809-71	TRANSISTOR 2SK536	
Q609	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q610	8-729-901-00	TRANSISTOR DTC124EK (U201RDS)	
Q611	8-729-901-05	TRANSISTOR DTA124EK	
		< RESISTOR >	
R102	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R103	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R104	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R105	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R106	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R107	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R108	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R109	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R110	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R111	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R113	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R114	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R115	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R116	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R117	1-216-041-00	METAL CHIP 470 5% 1/10W	
R118	1-216-857-11	METAL CHIP 1M 5% 1/16W	

MAIN

Ref. No.	Part No.	Description				Remark
R125	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R126	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R127	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	(U200:US, CND)
R127	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	(U200:E/U200RDS:AEP/U201RDS)
R127	1-216-077-00	METAL CHIP	15K	5%	1/10W	(U200RDS:G)
R128	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R129	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R130	1-216-025-00	METAL CHIP	100	5%	1/10W	
R131	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R132	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R133	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R202	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R204	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R205	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R206	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R207	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R208	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R209	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R210	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R211	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R213	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R214	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R215	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R216	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R217	1-216-041-00	METAL CHIP	470	5%	1/10W	
R218	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R225	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R226	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R227	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	(U200:US, CND)
R227	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	(U200:E/U200RDS:AEP/U201RDS)
R227	1-216-835-11	METAL CHIP	15K	5%	1/16W	(U200RDS:G)
R228	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R229	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R230	1-216-025-00	METAL CHIP	100	5%	1/10W	
R231	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R232	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R233	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R301	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R302	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R303	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R501	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R502	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R504	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R505	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R506	1-216-809-11	METAL CHIP	100	5%	1/16W	

Ref. No.	Part No.	Description				Remark
R507	1-216-809-11	METAL CHIP	100	5%	1/16W	
R508	1-216-814-11	METAL CHIP	270	5%	1/16W	
R509	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R510	1-216-017-00	METAL CHIP	47	5%	1/10W	
R511	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R512	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R515	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R516	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R517	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R518	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R519	1-216-828-11	METAL CHIP	3.9K	5%	1/16W	
R520	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R521	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R522	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R523	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R524	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R526	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R528	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R529	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R530	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R532	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R533	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R539	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R541	1-216-097-00	MWTAL CHIP	100K	5%	1/10W	
R542	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R543	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R544	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R545	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R546	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R548	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R549	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R550	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R551	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R552	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R553	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R556	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R557	1-216-849-11	METAL CHIP	220K	5%	1/16W	
R558	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R559	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R560	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R562	1-216-845-00	METAL CHIP	100K	5%	1/16W	
R569	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R570	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R571	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R572	1-216-073-00	METAL CHIP	10K	5%	1/10W	(U200:E)
R573	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R574	1-216-085-00	METAL CHIP	33K	5%	1/10W	(U200:US, CND)
R574	1-216-295-00	METAL CHIP	0	5%	1/10W	(U200RDS)

Ref. No.	Part No.	Description			Remark
R575	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R576	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R577	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R578	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R579	1-216-105-00	METAL CHIP	220K	5%	1/10W
R580	1-216-089-00	METAL CHIP	47K	5%	1/10W
R581	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R582	1-216-025-00	METAL CHIP	100	5%	1/10W
R583	1-216-025-00	METAL CHIP	100	5%	1/10W
R584	1-216-113-00	METAL CHIP	470K	5%	1/10W
R585	1-216-073-00	METAL CHIP	10K	5%	1/10W
R586	1-216-833-00	METAL CHIP	10K	5%	1/16W
R587	1-216-833-00	METAL CHIP	10K	5%	1/16W
R588	1-216-833-00	METAL CHIP	10K	5%	1/16W
R589	1-216-025-00	METAL CHIP	100	5%	1/10W
R590	1-216-105-00	METAL CHIP	220K	5%	1/10W
R591	1-216-049-00	METAL CHIP	1K	5%	1/10W
R592	1-216-049-00	METAL CHIP	1K	5%	1/10W
R593	1-216-049-00	METAL CHIP	1K	5%	1/10W
R594	1-216-049-00	METAL CHIP	1K	5%	1/10W
R595	1-216-809-11	METAL CHIP	100	5%	1/16W
R602	1-216-841-11	METAL CHIP	47K	5%	1/16W
R608	1-216-833-11	METAL CHIP	10K	5%	1/16W
R609	1-216-826-11	METAL CHIP	2.7K	5%	1/16W (U201RDS)
R610	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R611	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W
R613	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R614	1-216-073-00	METAL CHIP	10K	5%	1/10W
R615	1-216-097-00	METAL CHIP	100K	5%	1/10W
R616	1-216-097-00	METAL CHIP	100K	5%	1/10W
R617	1-216-077-00	METAL CHIP	15K	5%	1/10W
R618	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R619	1-216-073-00	METAL CHIP	10K	5%	1/10W
R620	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R621	1-216-049-00	METAL CHIP	1K	5%	1/10W
R622	1-216-073-00	METAL CHIP	10K	5%	1/10W
R623	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R624	1-216-049-00	METAL CHIP	1K	5%	1/10W
R627	1-216-079-00	METAL CHIP	18K	5%	1/10W
R628	1-216-822-11	METAL CHIP	1.2K	5%	1/16W (U200RDS/U201RDS)
R629	1-216-097-00	METAL CHIP	100K	5%	1/10W
R630	1-216-101-00	METAL CHIP	150K	5%	1/10W
R631	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R633	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R634	1-216-095-00	METAL CHIP	82K	5%	1/10W
R636	1-216-855-11	METAL CHIP	680K	5%	1/16W
R637	1-216-823-11	METAL CHIP	1.5K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R639	1-216-067-00	METAL CHIP	5.6K	5%	1/10W (U200:US, CND/U200RDS:G)
R639	1-216-073-00	METAL CHIP	10K	5%	1/10W (U200:E/U200RDS:AEP/U201RDS)
R640	1-216-001-00	METAL CHIP	10	5%	1/10W
R655	1-216-841-11	METAL CHIP	47K	5%	1/16W
R656	1-216-073-00	METAL CHIP	10K	5%	1/10W
R659	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (U200RDS/U201RDS)
R662	1-216-845-11	METAL CHIP	100K	5%	1/16W (U200RDS/U201RDS)
R663	1-216-097-00	METAL CHIP	100K	5%	1/10W (U200RDS/U201RDS)
R665	1-216-073-00	METAL CHIP	10K	5%	1/10W
R666	1-216-073-00	METAL CHIP	10K	5%	1/10W
R667	1-216-037-00	METAL CHIP	330	5%	1/10W

< VARIABLE RESISTOR >

RV601	1-238-598-11	RES, ADJ, CARBON 2.2K
RV602	1-241-764-11	RES, ADJ, CERMET 10K
RV603	1-238-600-11	RES, ADJ, CARBON 10K

< SWITCH >

SW501	1-572-272-11	SWITCH, SLIDE (ON/OFF)
SW502	1-572-272-11	SWITCH, SLIDE (9K/10K) (U200:E)

< VIBLATOR >

X502	1-579-532-11	VIBLATOR, CRYSTAL (32KHz)
X503	1-567-776-21	VIBRATOR, CERAMIC (6MHz)
X602	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)
X604	1-579-242-11	VIBRATOR, CRYSTAL (4.3MHz) (U200RDS/U201RDS)
X670	1-567-819-11	VIBRATOR, CERAMIC (4MHz) (U200RDS/U201RDS)

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* A-3222-430-A POWER BOARD, COMPLETE

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* 3-378-905-01 HEAT SINK

7-621-770-67 SCREW +PTT 2.6X6 (S)

< CAPACITOR >

C801	1-128-113-11	ELECT	3.3uF	20%	50V
C802	1-128-113-11	ELECT	3.3uF	20%	50V
C803	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C804	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C805	1-128-112-11	ELECT	33uF	20%	10V
C806	1-128-112-11	ELECT	33uF	20%	10V
C807	1-126-335-11	ELECT	220uF	20%	10V
C808	1-136-167-00	FILM	0.15uF	5%	50V

POWER

Ref. No.	Part No.	Description			Remark
C809	1-136-167-00	FILM	0.15uF	5%	50V
C810	1-136-167-00	FILM	0.15uF	5%	50V
C811	1-136-167-00	FILM	0.15uF	5%	50V
C901	1-128-113-11	ELECT	3.3uF	20%	50V
C902	1-128-113-11	ELECT	3.3uF	20%	50V
C903	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C904	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C905	1-128-112-11	ELECT	33uF	20%	10V
C906	1-128-112-11	ELECT	33uF	20%	10V
C907	1-126-335-11	ELECT	220uF	20%	10V
C908	1-136-167-00	FILM	0.15uF	5%	50V
C909	1-136-167-00	FILM	0.15uF	5%	50V
C910	1-136-167-00	FILM	0.15uF	5%	50V
C911	1-136-167-00	FILM	0.15uF	5%	50V
C912	1-128-268-11	ELECT	3300uF	20%	16V
C915	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C916	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
CN801	1-580-368-11	HOUSING, CONNECTOR(PC BOARD) 12P			
* CNP801	1-695-060-11	CONNECTOR 15P			
		< DIODE >			
D808	8-719-313-73	DIODE SFPB-52			
D809	8-719-313-73	DIODE SFPB-52			
D810	8-719-313-73	DIODE SFPB-52			
D811	8-719-313-73	DIODE SFPB-52			
D904	8-719-945-59	DIODE DSA3A4			
D908	8-719-313-73	DIODE SFPB-52			
D909	8-719-313-73	DIODE SFPB-52			
D910	8-719-313-73	DIODE SFPB-52			
D911	8-719-313-73	DIODE SFPB-52			
		< IC >			
IC801	8-759-243-27	IC TA8215H			
IC901	8-759-243-27	IC TA8215H			
		< RESISTOR >			
R801	1-216-081-00	METAL CHIP	22K	5%	1/10W
R802	1-216-081-00	METAL CHIP	22K	5%	1/10W
R803	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R804	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R805	1-216-097-00	METAL CHIP	100K	5%	1/10W
R806	1-216-041-00	METAL CHIP	470	5%	1/10W
R807	1-216-041-00	METAL CHIP	470	5%	1/10W
R808	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R809	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R810	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R811	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R901	1-216-081-00	METAL CHIP	22K	5%	1/10W
R902	1-216-081-00	METAL CHIP	22K	5%	1/10W
R903	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R904	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R905	1-216-097-00	METAL CHIP	100K	5%	1/10W
R906	1-216-190-00	METAL GLAZE	470	5%	1/8W
R907	1-216-190-00	METAL GLAZE	470	5%	1/8W
R908	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R909	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R910	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R911	1-216-134-00	METAL CHIP	2.2	5%	1/8W
		< THERMISTOR >			
TH901	1-809-148-11	THERMISTOR, POSITIVE			
TH902	1-809-148-11	THERMISTOR, POSITIVE			

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MISCELLANEOUS

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58	1-696-001-11	CORD (WITH CONNECTOR) (AUX)
59	1-690-485-11	CORD (WITH CONNECTOR) (WM)
ANT1	1-574-339-31	CORD (WITH CONNECTOR) (ANT)
F1	1-532-508-00	FUSE, GLASS TUBE 8A
F2	1-532-360-XX	FUSE, GLASS TUBE 1A
S501	1-570-771-11	SWITCH (RELEASE)

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Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-696-022-11	CORD (WITH CONNECTOR) (POWER)	
*	3-355-207-01	CARDBOARD (E)	
	3-379-068-01	CUSHION (F)	
*	3-380-791-01	CUSHION (UPPER)	
*	3-380-792-01	CUSHION (LOWER)	
*	3-379-857-01	INDIVIDUAL CARTON (U200:US, CND)	
*	3-380-793-01	INDIVIDUAL CARTON (U200RDS)	
*	3-380-795-01	INDIVIDUAL CARTON (U201RDS)	
	3-382-020-01	INDIVIDUAL CARTON (U200:E)	
	3-755-028-11	MANUAL, INSTRUCTION (U200RDS/U201RDS) (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH)	
	3-755-028-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (U200:US, CND)	
	3-755-028-41	MANUAL, INSTRUCTION (U200RDS:AEP) (SPANISH, PORTUGUESE, SWEDISH)	
	3-755-028-51	MANUAL, INSTRUCTION (U200:E) (ENGLISH, SPANISH, CHINESE)	
	3-755-028-61	MANUAL, INSTRUCTION (DANISH, FINNISH) (U200RDS:AEP)	
	3-755-029-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH) (U200RDS/U201RDS)	
	3-755-029-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (U200:US, CND)	
	3-755-029-41	MANUAL, INSTRUCTION, INSTALL (SPANISH, PORTUGUESE, SWEDISH) (U200RDS:AEP)	
	3-755-029-51	MANUAL, INSTRUCTION, INSTALL (U200:E) (ENGLISH, SPANISH, CHINESE)	
	3-755-029-61	MANUAL, INSTRUCTION, INSTALL (DANISH, FINNISH) (U200RDS:AEP)	
	X-3365-034-1	CASE ASSY	

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HARDWARE LIST
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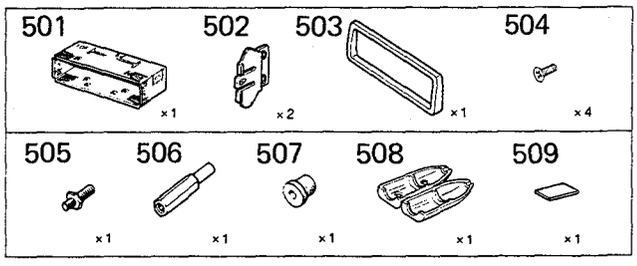
#1	7-621-255-25	SCREW +P 2X4
#2	7-621-770-67	SCREW +PTT 2.6X6 (S)
#3	7-621-770-XX	SCREW +PTT 2.6X8 (S)
#4	7-621-772-00	SCREW +B 2X3
#5	7-621-773-95	SCREW (+PTT 2.6X6), GROUND POINT
#6	7-624-101-01	STOP RING 1.2 (E TYPE)
#7	7-627-553-38	SCREW, PRECISION +P 2X3
#8	7-627-853-57	PRECISION SCREW +P 2X5 TYPE3
#9	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT
#10	7-685-646-79	SCREW +P 3X8 TYPE2 NON-SLIT

MOUNTING HARDWARE



Ref. No.	Part No.	Description	Remark
		MOUNTING HARDWARE	
		**********	
501	3-323-219-01	FRAME, FITTING	
502	3-374-200-01	SPRING (FITTING)	
* 503	3-374-199-01	COLLAR	
504	3-329-814-01	SCREW (M4X6), SPECIAL PAN (+)	
505	3-323-209-01	BOLT (4-5), STUD	
506	3-323-210-01	ADJUSTOR, STUD BOLT	
507	3-349-410-01	BUSHING	
508	3-376-549-01	HOLDER (WMJ)	
509	3-376-995-01	CUSHION (W)	

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